

**FIFTH FIVE-YEAR REVIEW REPORT FOR
CEDARTOWN MUNICIPAL LANDFILL SUPERFUND SITE
POLK COUNTY, GEORGIA**



SEPTEMBER 2021

Prepared by

**U.S. Environmental Protection Agency
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Date

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LIST OF ABBREVIATIONS AND ACRONYMS

AOC	Administrative Order on Consent
ARAR	Applicable or Relevant and Appropriate Requirement
AROD	Amended Record of Decision
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
COC	Contaminant of Concern
EPA	United States Environmental Protection Agency
EPD	Environmental Protection Division
ESD	Explanation of Significant Differences
FS	Feasibility Study
FYR	Five-Year Review
HHRA	Human Health Risk Assessment
HQ	Hazard Quotient
IC	Institutional Control
MCL	Maximum Contaminant Level
MCLG	Maximum Contaminant Level Goal
µg/L	Micrograms per Liter
NCP	National Contingency Plan
NPL	National Priorities List
O&M	Operation and Maintenance
OSWER	Office of Solid Waste and Emergency Response
OU	Operable Unit
PCB	Polychlorinated Biphenyl
PRP	Potentially Responsible Party
RAO	Remedial Action Objective
RI	Remedial Investigation
ROD	Record of Decision
RSL	Regional Screening Level
SVOCs	Semivolatile Organic Compounds
TAL	Target Analyte List
TCL	Target Compound List
UU/UE	Unlimited Use and Unrestricted Exposure
VOCs	Volatile Organic Compounds

I. INTRODUCTION

The purpose of a five-year review (FYR) is to evaluate the implementation and performance of a remedy to determine if the remedy is and will continue to be protective of human health and the environment. The methods, findings and conclusions of reviews are documented in FYR reports such as this one. In addition, FYR reports identify issues found during the review, if any, and document recommendations to address them.

The U.S. Environmental Protection Agency is preparing this FYR pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Section 121, consistent with the National Contingency Plan (NCP) (40 Code of Federal Regulations (CFR) Section 300.430(f)(4)(ii)) and considering EPA policy.

This is the fifth FYR for the Cedartown Municipal Landfill Superfund site (the Site). The triggering action for this statutory review is the completion date of the previous FYR. The FYR has been prepared because hazardous substances, pollutants or contaminants remain at the Site above levels that allow for unlimited use and unrestricted exposure (UU/UE).

The Site consists of a single site-wide operable unit (OU-1), which addresses the landfill cover and groundwater remedies. This FYR addresses the site-wide OU.

EPA remedial project manager Brian Farrier led the FYR. Additional participants included the EPA community involvement coordinator Ron Tolliver, Yi Lu from the Georgia Environmental Protection Division (EPD) and Hagai Nassau and Jill Billus from EPA FYR contractor Skeo. The city of Cedartown, one of the potentially responsible parties (PRPs), was notified of the initiation of this FYR. The review began on October 5, 2020.

Appendix A lists the resources referenced during development of this FYR Report. Appendix B is the current site status. Appendix C provides the Site's chronology of events.

Site Background

The 94-acre Site is located off Tenth Street in the city of Cedartown, Polk County, Georgia, about 60 miles northwest of Atlanta (Figure 1). The Site includes the area where an iron ore strip mine and later a municipal landfill operated. Mining operations began in the 1880s. Landfill operations began by 1960 and included disposal of municipal and industrial wastes in open pits leftover from the mining operation.¹ Records as to the sequence of development of the landfill are not available. However, an interpretation of aerial photographs of the Site completed by the EPA Environmental Monitoring Systems Laboratory suggested the following outline of the Site's development:

- 1960 – approximately 4 acres of fill material existed on the eastern section of the Site with three areas of debris located north and east of the fill area.
- 1966 – approximately 19 acres of fill material existed, and landfilling activities were concentrated in the northern part of the Site.

¹ The 1998 Amended Record of Decision (AROD) indicates that the landfill received primarily municipal solid sanitary waste, but it may have also received industrial waste. Industrial wastes reportedly included sludge from an industrial waste water treatment system, animal fat and vegetable oil skimmings from a separation unit, liquid dye wastes, latex paint and paint sludge and plant trash.

- 1972 – approximately 63 acres of fill material existed, and landfilling activities were proceeding in a southerly direction along the western perimeter of the Site.
- 1980 – approximately 90 acres of fill material existed, and the area was graded and partially revegetated.
- 1985 – no expansion of landfilling activities was observed, and fill areas had been revegetated.

Landfill operators closed the landfill with a layer of clay and a vegetative cover when operations ended in 1979. Site activities contaminated groundwater with metals and left waste in place.

The Site currently includes the covered landfill areas and associated groundwater monitoring system. Much of the Site is wooded (Figure 1). The Cedartown public works department and additional businesses are in the eastern portion of the Site, along Tenth Street. Features associated with Cedartown public works department include an equipment storage and maintenance building, a trailer, parking areas and grassed areas. Additional buildings associated with the businesses are located to the northeast and southeast.

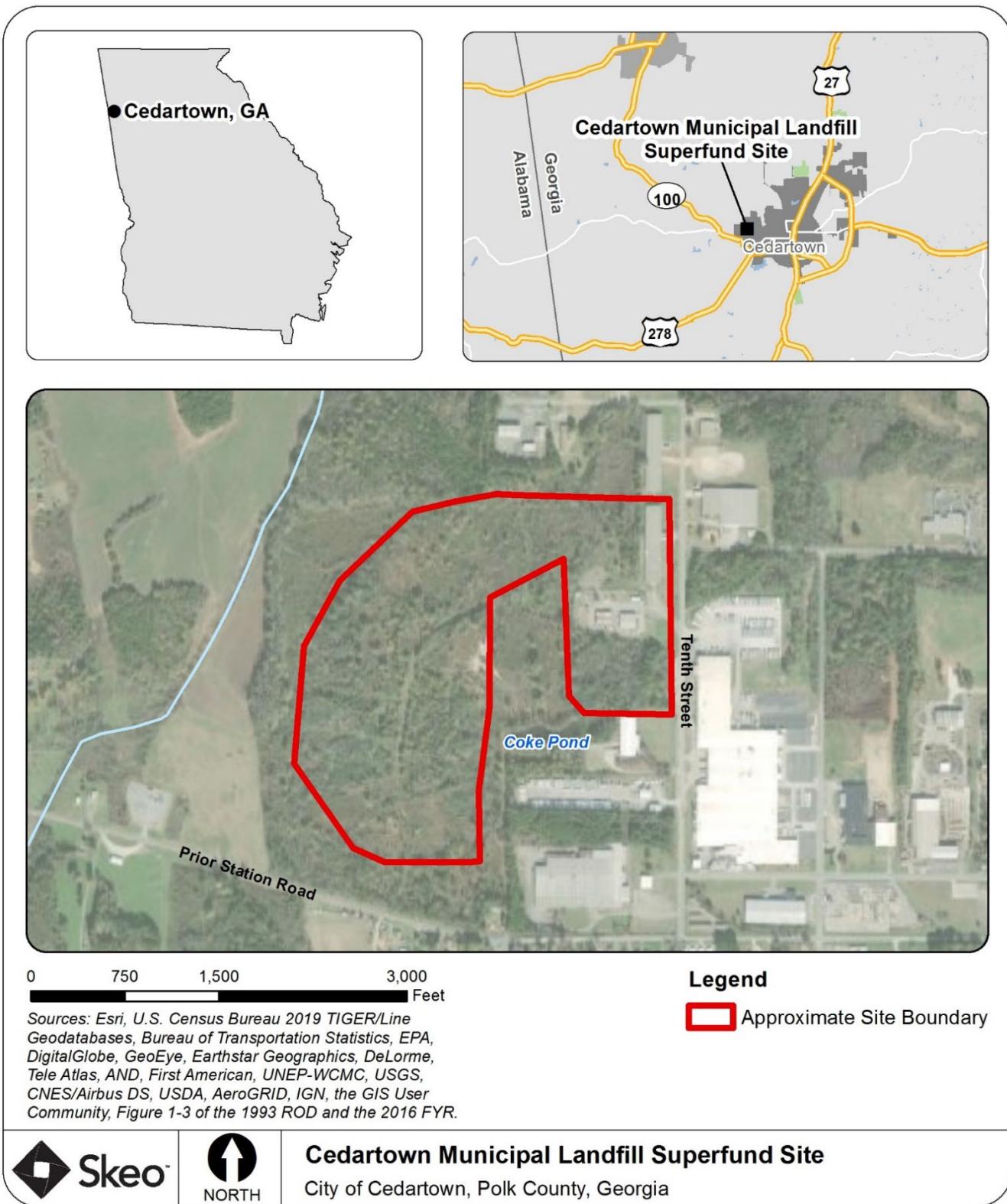
Although the perimeter of the Site is not fenced, access is limited due to dense vegetation around the northern, western, and southern boundaries. The primary access route from the east directs traffic past the city public works garage and is restricted by a gate, which further restricts access to the Site.

Property immediately east of the Site consists of an industrial complex, while land to the north, south and west is a mixture of residential, agricultural, and undeveloped land. About 10 acres of land, situated between the eastern and western parts of the Site, were not used for landfill operations and are not part of the Site. This area includes a pond, referred to as the Coke Pond in early site records (Figure 1). An intermittent stream and pond are about 700 feet west of the Site.

The crown of the Site is 872 feet above mean sea level and gently slopes on all sides except for portions of the western perimeter, which are relatively steep. Geology at the Site consists of a residuum/saprolite layer that overlays the Newala limestone. Groundwater at the Site occurs within the Newala limestone, which is the aquifer affected by site contamination. Karst features, such as solution-enlarged fractures, are present in the aquifer. Groundwater beneath the Site generally flows to the northeast.

Nearby residences and businesses are served by the municipal water supply, which the city of Cedartown sources from Cedar Spring, located up-gradient of the Site. The 1993 Record of Decision (ROD) indicated that two private wells were located within one mile of the Site. One of the private wells is down-gradient of the Site and the other is cross-gradient. Neither well is used for potable purposes. The down-gradient well is over 200 feet deep and installed in a different geologic formation (the Knox formation) and is not expected to be affected by site-related contamination. Institutional controls are currently in place that restrict installation of private wells.

Figure 1: Site Vicinity



Disclaimer and Note: This map and any boundary lines within the map are approximate and subject to change. The map is not a survey. The map is for informational purposes only regarding the EPA's response actions at the Site.

The approximate site boundary differs slightly from the boundary presented in previous FYR Reports. The boundary depicted is from Figure 1-3 of the 1993 ROD. The updated boundary was based on the results of the remedial investigation (RI) rather than a pre-RI boundary, which was used in previous FYRs.

FIVE-YEAR REVIEW SUMMARY FORM

SITE IDENTIFICATION		
Site Name: Cedartown Municipal Landfill		
EPA ID: GAD980495402		
Region: 4	State: Georgia	City/County: Cedartown / Polk
SITE STATUS		
NPL Status: Deleted		
Multiple OUs? No	Has the Site achieved construction completion? Yes	
REVIEW STATUS		
Lead agency: EPA		
Author name: Brian Farrier		
Author affiliation: EPA with support provided by Skeo		
Review period: 10/5/2020 – 8/10/2021		
Date of site inspection: Not applicable		
Type of review: Statutory		
Review number: 5		
Triggering action date: 9/27/2016		
Due date (five years after triggering action date): 9/27/2021		

II. RESPONSE ACTION SUMMARY

Basis for Taking Action

The Cedartown Municipal Landfill PRP committee (PRPs) conducted a baseline human health risk assessment (HHRA) as part of the remedial investigation and feasibility study (RI/FS) in 1993. The HHRA identified unacceptable risks to future users of the groundwater as a drinking water source. The contaminants of concern (COCs) in groundwater include beryllium, cadmium, chromium, lead, and manganese. Estimated potential exposure to site chemicals in surface water, surface soil and surface sediments did not result in unacceptable human health risks; therefore, there are no COCs for these media.

Results from an ecological risk evaluation found that chemical exposures on the Site do not represent a threat to wildlife that may inhabit the area. The Coke Pond did not contain surface water and sediment contaminants at levels that would adversely affect biota living in the pond. However, contaminants from a seep located west of the Coke Pond, could potentially migrate into the Coke Pond in the future.

Response Actions

In 1979, the city closed the landfill in accordance with applicable state regulations in effect at that time. The landfill's cover consisted of a clay layer varying in thickness from one to 12 feet, and a vegetative cover. The final extent of the cover was not documented at that time.

The EPA conducted an initial site inspection in 1985, and completed additional investigations between 1986 and 1988. The EPA listed the Site on the Superfund program's National Priorities List (NPL) in 1989.

The PRPs conducted an RI/FS between 1990 and 1993 pursuant to a 1990 Administrative Order on Consent (AOC) issued by the EPA. The RI/FS delineated the maximum limits of waste disposal using historical aerial photographs, discussions with current and former city employees and data from boring installation. The RI/FS found that placement of waste materials was not uniform across the landfill. Only 11 of 30 boreholes advanced within suspected waste areas encountered waste materials. When encountered, waste materials were found to range from 1-foot thick to 30-feet thick. Figure D-1 in Appendix D shows the areas evaluated. Figure D-2 in Appendix D shows the areas where mining (and subsequent landfilling) activities likely occurred.

Remedy Selection

The EPA selected a remedy for the Site in a 1993 ROD and modified the remedy with a 1998 Amended ROD (AROD). The EPA also issued an Explanation of Significant Differences (ESD) in 1996 to modify the performance standard for manganese. The 1993 ROD did not define specific remedial action objectives (RAOs), but it clarified that the purpose of the remedial action is to prevent current and future exposure to the landfill wastes and contaminated groundwater, and to reduce the migration of contaminants.

The Site's remedy, as modified by the 1998 AROD, includes:

- Institutional controls to restrict groundwater use beneath and immediately surrounding the Site.
- Maintenance of the landfill cover.

The 1993 ROD also required institutional controls to prevent development that would disturb or adversely change existing site conditions. The 1993 ROD originally required groundwater and surface water monitoring to evaluate natural attenuation processes, as well as a contingency remedy for groundwater extraction and treatment. The 1998 AROD removed the monitoring requirements and contingency remedy because groundwater contamination levels for all COCs, except manganese, were below performance standards for two and a half years. Manganese concentrations in groundwater had remained stable and did not appear to be related to the landfill.

Although the AROD removed the requirement for groundwater monitoring, the AROD Declaration stated that a groundwater sampling event would be done as part of the first FYR to verify that the selected remedy remains protective.

Performance Standards

Table 1 identifies the groundwater performance standards for site COCs as set forth in the 1993 ROD and modified by the 1996 ESD.

Table 1: Groundwater Remedy Performance Standards

COC	Performance Standard ($\mu\text{g/L}$)	Basis
Beryllium	4	MCL
Cadmium	5	MCL
Chromium	100	MCL
Lead	15	EPA action level ^a
Manganese	840 ^b	risk-based

Notes:

a) EPA action level from the Lead and Copper Rule, 56 FR, June 7, 1991.

b) The 1996 ESD changed the manganese performance standard from 175 $\mu\text{g/L}$ to 840 $\mu\text{g/L}$, based on updates to manganese toxicity values.

$\mu\text{g/L}$ = micrograms per liter

MCL = federal maximum contaminant level

Source is Table 6-4, 1993 ROD and 1996 ESD

Status of Implementation

The EPA issued the PRPs a Unilateral Administrative Order to design and implement the remedy in 1994. The PRPs agreed to comply with the order. The PRPs completed the remedial design between May and November 1994.

The remedial action began in November 1994 when the PRPs initiated landfill cover and seep inspections. Inspections occurred semi-annually between November 1994 and February 1998, and intermittently thereafter until 2003.

The PRPs implemented institutional controls for several of the site properties in 1995. The Institutional Control Review section of this FYR Report provides additional information on the institutional controls implemented.

The PRPs implemented a groundwater monitoring program in January 1995. Groundwater sampling occurred quarterly through September 1997. Monitoring data found that the only COC consistently detected in any of the perimeter monitoring wells was manganese. Three perimeter wells had a significantly higher concentration of manganese than the mean manganese concentration from the interior monitoring wells. These data suggested manganese was naturally occurring.

Based on the groundwater monitoring results, the EPA amended the remedy in 1998 to remove the requirements for a groundwater extraction and treatment contingency remedy, while requiring a groundwater sampling event as part of the first FYR.

EPA completed the Site's Close Out Report in September 1998. The report stated:

This site meets all the site completion requirements as specified in OSWER Directive 9320.2-3C, Procedures for Completion and Deletion of National Priorities List Sites and Update. Specifically, confirmation sampling verifies that the site has achieved the ROD cleanup objective, that groundwater use is restricted in areas where groundwater performance standards are exceeded by institutional controls. In addition, landfill cover maintenance and seep controls are continuing. All remedial actions specified in the ROD, as amended, have been implemented.

The EPA published a Notice of Intent to Delete the Site from the NPL in November 1998 and deleted the Site from the NPL in March 1999.

The PRPs performed a groundwater sampling event in 2002 just after the first FYR, meeting the requirement specified in the AROD Declaration. The PRPs conducted an additional groundwater sampling event in 2006 as part of the second FYR, and a more comprehensive groundwater and surface water sampling event in 2016 as part of the fourth FYR. Sampling conducted in 2016 included a full suite of constituents, including volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), pesticides, polychlorinated biphenyls (PCBs), metals, cyanide, chlorides and sulfates. Manganese was the only COC detected above its groundwater performance standard in 2016. The 2016 FYR Report also stated that, because of coexistence of sedimentary iron and manganese, manganese is not likely to diminish in both groundwater and surface water at the former iron ore (limonite) mining site. Manganese did not appear to be related to the landfill.

At the request of the EPA, the city of Cedartown conducted an additional groundwater and surface water sampling event in April 2021 in support of this FYR. The Data Review section of this FYR Report includes evaluation of the results.

Institutional Control (IC) Review

The 1998 AROD required institutional controls to prevent groundwater use in the areas where performance standards are exceeded. An institutional control in the form of a city ordinance restricting installation of wells is currently in effect and is preventing use of contaminated groundwater. Appendix E includes a copy of the city ordinance.

The 1993 ROD originally required institutional controls to prevent development that would disturb or adversely change existing site conditions. The Site consists of portions of seven parcels (Figure 2). Borings installed during the RI identified evidence of waste on three parcels (018-033A, 024-007 and 024-010A) and no evidence of waste on one parcel (024-008). The RI also documented that parcel 024-005 is outside the limits of landfill activities. Although borings to investigate for evidence of waste were not installed on the Coke Pond parcel (024-005A), the Coke Pond is located downstream of seeps potentially contaminated with site-related constituents. Boreholes were not installed on parcel 024-010, so the potential for waste on this parcel is unknown. However, given its location along the outer perimeter of the site boundary and proximity to Tenth Street, the likelihood of waste in place on this parcel is low. Figure 2 shows the RI boreholes that exhibited waste as well as “clean” boreholes in relation to current parcel boundaries.

The city has zoned the Site for industrial use (Ind-H), effective June 2011. Appendix E includes a copy of the city’s zoning map. Note that this designation differs from the zoning designation identified in the 2011 and 2016 FYR Reports. The previous FYRs noted that the Site is zoned in a special use district (SU-1). Recent correspondence with the city zoning officer indicated that the Site is only bound to the Ind-H zoning restrictions.²

In 1995, the city recorded an affidavit with Polk County that affects the deeds to those parcels with evidence of waste (018-033A, 024-007 and 024-010A) as well as the Coke Pond parcel (024-005A). The affidavit provides notice that the properties are listed on the state’s hazardous site inventory and that interested parties should contact the property owner or Georgia EPD for more information. Appendix E

² Email from J. Martin, city of Cedartown, to J. Billus, Skeo, dated February 3, 2021.

includes a copy of the affidavit. The city of Cedartown subsequently purchased the properties with evidence of waste and the Coke Pond parcel between 1996 and 1998. Neither the 1995 affidavit nor deeds for the affected properties include land use or groundwater use restrictions; however, they serve as an informational control for current and future property owners.

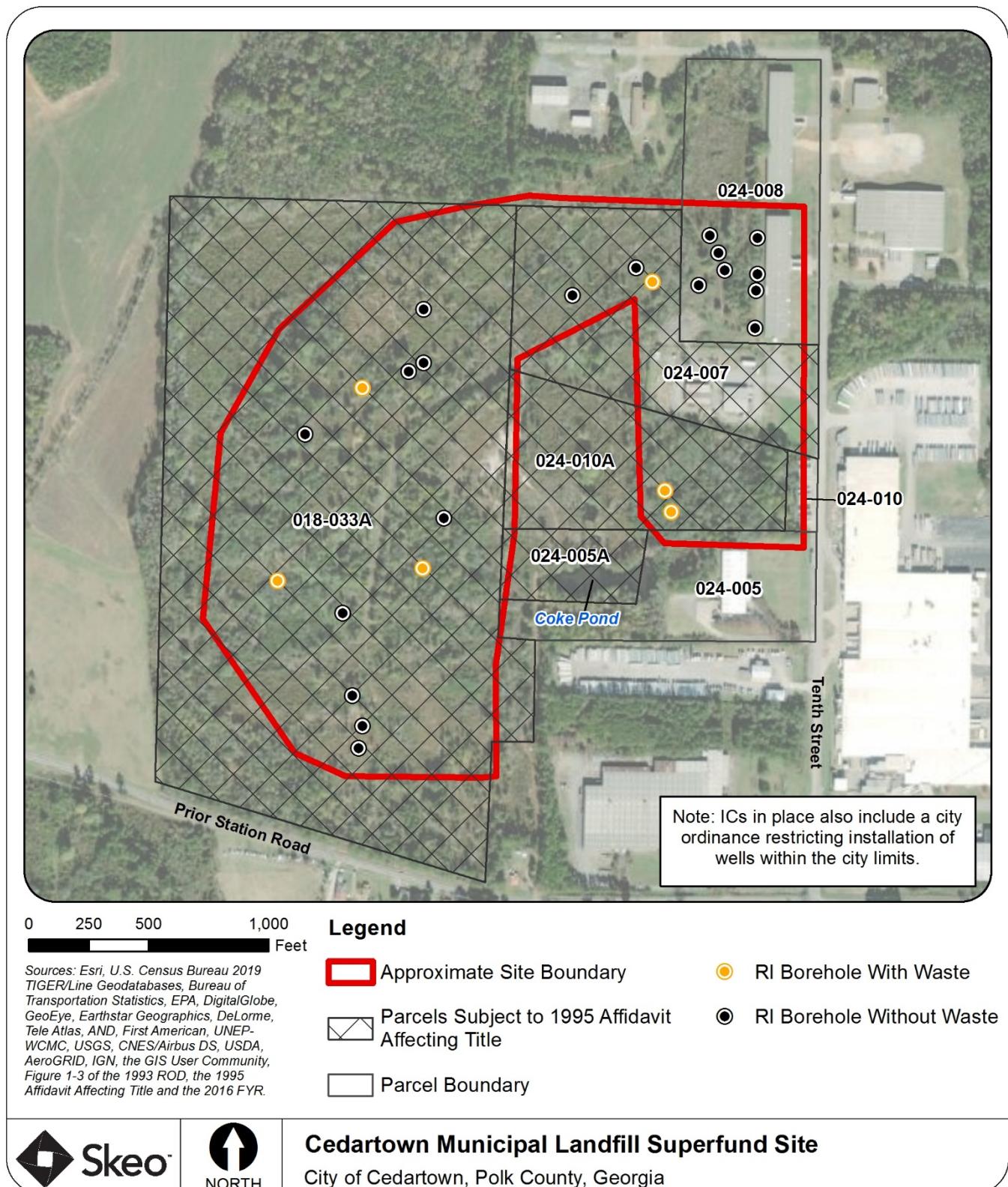
Table 2: Summary of Planned and/or Implemented Institutional Controls (ICs)

Media, Engineered Controls, and Areas That Do Not Support UU/UE Based on Current Conditions	ICs Needed	ICs Called for in the Decision Documents	Impacted Parcel(s)	IC Objective	Title of IC Instrument Implemented and Date (or planned)
Waste disposal areas	Yes	Yes	018-033A, 024-007, 024-010A, 024-005A (Coke Pond)	To restrict land use	City of Cedartown industrial zoning designation (2011) Affidavit Affecting Title, Book 517, Page 665 (June 1995)
Groundwater	Yes	Yes	018-033A, 024-007, 024-008, 024-010A, 020-010, 024-005 024-005A	To prevent groundwater use in the area where performance standards are exceeded	City of Cedartown ordinance ^a (November 1997)

Notes:

- a) City ordinance restricts installation of wells.

Figure 2: Institutional Control Map



Disclaimer: This map and any boundary lines within the map are approximate and subject to change. The map is not a survey. The map is for informational purposes only regarding the EPA's response actions at the Site.

Systems Operations/Operation and Maintenance (O&M)

The city of Cedartown has assumed O&M of the Site's remedy. An O&M program as presented in the Remedial Design/Remedial Action Work Plan consisted of semi-annual site surveys, regrading or repacking of soil as needed to maintain the soil cover over waste materials and groundwater monitoring. The AROD removed the requirement for groundwater monitoring.

Regular landfill inspections have not occurred since 2003. This issue was raised in the 2011 and 2016 FYRs. O&M activities associated with inspections and maintenance of the landfill have not been conducted during this FYR period. The city of Cedartown has indicated that a current O&M Plan is not in place.

The EPA asked the city to conduct groundwater sampling to support both the 2016 and 2021 FYRs. During the April 2021 sampling, the city's contractor noted changes in surface water conditions due to beaver activity; in addition, vegetation growth had damaged monitoring well LW-2, while other wells were unable to be located. The contractor also noted that well CL-08-WT had a large amount of methane built up on it which off-gassed for a substantial amount of time after opening the well.³ The Data Review section of this FYR Report includes additional information from the April 2021 sampling event.

III. PROGRESS SINCE THE PREVIOUS REVIEW

Table 3 includes the protectiveness determination and statement from the 2016 FYR. Table 4 includes the recommendation from the 2016 FYR and the status of the recommendation.

Table 3: Protectiveness Determinations/Statements from the 2016 FYR

OU #	Protectiveness Determination	Protectiveness Statement
Sitewide	Short-term Protective	The remedy at the Site currently protects human health and the environment in the short term because there is no evidence of exposure. However, in order for the remedy to be protective in the long term, additional ICs may be needed on three parcels that are possibly within the landfill boundary.

³ Methane buildup noted in an email from Geo-Hydro Engineers, Inc. to E. Guzman, City Manager, City of Cedartown, dated April 21, 2021.

Table 4: Status of Recommendation from the 2016 FYR

OU #	Issue	Recommendation	Current Status	Current Implementation Status Description	Completion Date
Sitewide	Three parcels (024-008, 024-010 and 024-005) that may be within the landfill boundary have no deed restrictions.	Reevaluate landfill boundary and possibly place deed restrictions on the three parcels.	Considered But Not Implemented	<p>The EPA held a teleconference with the city in October 2017 to discuss deed notices for the affected parcels. To date, additional notices have not been placed on the parcels.</p> <p>As part of the 1992 RI, eight soil borings were installed on parcel 024-008 (see Figure 2); no landfill waste was found in these borings. The 1992 RI also concluded that parcel 024-005 (the former Rome Coca Cola Bottling Company) is “outside the limits of landfill activities...”</p> <p>Historical aerial photography was also re-evaluated during this FYR period. It was determined that the aerial photography did not provide sufficient justification to place additional deed notices on parcels 024-008, 024-010 and 024-005.</p> <p>See the Institutional Control Review section of this FYR Report for additional information.</p>	N/A

IV. FIVE-YEAR REVIEW PROCESS

Community Notification, Community Involvement and Site Interviews

A public notice was made available by a newspaper posting in *The Standard Journal* on November 25, 2020 (Appendix F). It stated that the FYR was underway and invited the public to submit any comments to the EPA. The results of the review and the report will be made available at the Site’s information repository, Cedartown Public Library, located at 245 East Avenue, Cedartown, Georgia 30125. The EPA will also post the FYR on its website at: <https://www.epa.gov/superfund/cedartown-municipal-landfill>.

During the FYR process, interviews were conducted to document any perceived problems or successes with the remedy that has been implemented to date. The interviews are summarized below. Appendix G includes the completed interview forms.

The Georgia EPD project manager noted that the remedy is effective. He noted that any manganese remaining in groundwater is associated with the formation of the iron ores and is not associated with the waste. Overgrown trees and shrubs on site help prevent soil erosion of the soil cover areas. The Georgia EPD project manager is not aware of any changes in state laws that might affect the protectiveness of the remedy. He noted that three parcels, originally identified in the 2016 FYR Report, may still need deed notices. There are no current plans for reuse of the Site.

The Cedartown city manager is well-informed about the Site and its remedial program. The city manager noted that the EPA can provide future updates on the Site with digital documents. Trespassing on site may have occurred but it is rare. The city manager is unaware of any state laws or local regulations that might affect the protectiveness of the remedy. There are no changes in projected land use of the Site.

The Cedartown public works manager has a positive impression of the project. He noted that an O&M plan is not currently in place. O&M activities are not currently being conducted.

Data Review

A contractor for the city of Cedartown conducted a groundwater and surface water sampling event in April 2021 at locations selected by Georgia EPD during the previous sampling event in 2016.

The June 2021 Report of Natural Attenuation Monitoring presents the results of the 2021 sampling event. Appendix H includes a copy of this report. Additional evaluation of the results is provided below.

Monitoring wells OW-3, OW-4, OW-6B, LW-6 and CL-08-WT and surface water locations SW-2 and SW-3 were sampled during the 2021 event. Several locations sampled in 2016 could not be sampled in 2021. Monitoring well LW-2 was damaged by significant vegetation and unable to be sampled.

Monitoring well LW-3 was fully submerged below surface water and unable to be sampled.

The expanded area of surface water appeared to be the result of beaver activity altering surface water features at the Site. The change in surface water features also caused the surface water SW-1 sampling location to be dry; therefore, a surface water sample was not collected from the SW-1 location in 2021. Appendix I includes photographs taken during the April 2021 sampling event. Figure 3 shows monitoring well and surface water sampling locations at the Site.

All groundwater and surface water samples from the 2021 monitoring event were analyzed for target compound list (TCL) VOCs, TCL SVOCs, TCL pesticides, TCL PCBs, target analyte list (TAL) metals, cyanide, chlorides and sulfates, alkalinity, and hardness. Table 3 in the Appendix H report is a summary of the 2021 results compared to results from 2016, 2006 and 1991.

Groundwater

This FYR compared the detected concentrations of COCs (beryllium, cadmium, chromium, lead, and manganese) in groundwater from the 2021 sampling event against the groundwater performance standards from the 1993 ROD as modified by the 1996 ESD (Table 1). The 2021 lead concentration in CL-08-WT (21.7 µg/L) exceeds the lead groundwater performance standard of 15 µg/L. Lead was detected in this well in 1991 at a concentration of 92 µg/L. Four wells (OW-3, OW-4, LW-6 and CL-08-WT) also reported concentrations of manganese above the manganese groundwater performance standard of 840 µg/L. The EPA determined that manganese was not related to waste disposal activities at the Site. All other COCs were below the groundwater performance standards.⁴

Several other constituents (non-COCs) were detected in the groundwater samples. These results were compared to the Georgia EPD Hazardous Site Response Act media target concentrations. All detections were below the media target concentrations except for benzene in monitoring well LW-6 and its

⁴ Note the reporting limit for beryllium (10 µg/L) during the 2021 sampling event was above its performance standard (4 ug/L).

duplicate at concentrations of 6.3 µg/L and 6.6 µg/L, respectively (state media target concentration is 5 µg/L).

Surface Water

VOCs, SVOCs, pesticides, PCBs and cyanide were not detected above laboratory reporting limits in either of the two surface water samples (SW-2 and SW-3) collected in 2021. In addition, except for manganese, none of the COCs in groundwater (beryllium, cadmium, chromium lead and manganese) were detected above reporting limits in surface water. Manganese was detected in SW-2 at 148 µg/L and in SW-3 at 5,630 µg/L. The Site's decision documents did not require a remedial action for surface water; therefore, decision documents did not establish surface water performance standards.

The manganese concentrations at both locations, however, were above the federal ambient water quality criteria for human health (50 µg/L and 100 µg/L) as well as the 2018 EPA Region 4 ecological surface water chronic screening value (93 µg/L).^{5,6} The EPA previously determined that manganese is not related to waste disposal activities at the Site.

Site Inspection

Due to the COVID-19 pandemic, the EPA did not conduct a site inspection for this FYR. However, the city of Cedartown's on-site contractor, for the 2021 sampling event, noted that vegetation has damaged a well, beaver activity has altered surface water features at the Site, and some wells could not be located.

⁵ Federal ambient water quality criteria available at <https://www.epa.gov/wqc> (accessed June 23, 2021); human health values are for consumption of water plus organisms (50 µg/L) and organisms only (100 µg/L). Aquatic life criteria for manganese have not been established.

⁶ 2018 EPA Region 4 surface water screening values available at https://www.epa.gov/sites/production/files/2018-03/documents/era Regional supplemental guidance report-march-2018_update.pdf (accessed June 23, 2021).

Figure 3: Sampling Locations



Disclaimer: This map and any boundary lines within the map are approximate and subject to change. The map is not a survey. The map is for informational purposes only regarding the EPA's response actions at the Site.

V. TECHNICAL ASSESSMENT

QUESTION A: Is the remedy functioning as intended by the decision documents?

Question A Summary:

Yes, the remedy is functioning as intended by the decision documents. An objective of the remedial action is to prevent current and future exposure to contaminated groundwater. There are no known exposures to groundwater at the Site. The Site and surrounding area use the municipal water supply and institutional controls are in place to restrict use of groundwater. As of the most recent groundwater sampling event in 2021, no COCs were detected above groundwater performance standards except for manganese in four wells and lead in one well. All other COCs have attenuated to below the performance standards or reporting limits. The single lead exceedance (in well CL-08-WT, 21.7 µg/L) was below the 1991 concentration of 92 µg/L. The EPA previously determined that manganese is not related to waste disposal activities at the Site. Manganese was also detected in two surface water samples during the 2021 monitoring event.

During the 2021 monitoring event, the city of Cedartown's contractor noted methane gas buildup in monitoring well CL-08-WT. Additional action to evaluate and potentially vent the off-gas from the landfill may be necessary.

The Site's remedy calls for maintenance of the landfill cover. The city of Cedartown, as a PRP, is responsible for landfill cover maintenance. Interviews conducted as part of this FYR found that inspections and maintenance of the landfill cover areas are not occurring. Additionally, several monitoring wells were either damaged or not located during the recent monitoring event. There is no current O&M Plan in place to ensure the long-term integrity of these remedial components.

Institutional controls are in place. An institutional control in the form of a city ordinance restricting installation of wells is currently in effect and is preventing use of contaminated groundwater. There are no known private wells on site or in the immediate vicinity of the Site. The city of Cedartown recorded an affidavit with Polk County that affects the deeds to those parcels with evidence of waste as well as the Coke Pond parcel. The affidavit is a notice that the Site is listed on the state's hazardous site inventory, but it does not explicitly restrict land use or excavation in waste disposal areas, nor does it provide for long-term maintenance of the landfill cover and other remedial components. The parcels with known waste in place are owned by the city; the city, as a PRP, is aware of the contamination in place. Historical aerial photography was also re-evaluated during this FYR period. It was determined that the aerial photography did not provide sufficient justification to place additional deed notices on parcels 024-008, 024-010 and 024-005.

QUESTION B: Are the exposure assumptions, toxicity data, cleanup levels and RAOs used at the time of the remedy selection still valid?

Question B Summary:

Yes, the exposure assumptions, cleanup levels and RAOs used at the time of the remedy selection are still valid. Risk assessment methods and toxicity data for some COCs have changed, but these changes do not affect the protectiveness of the remedy because site-related groundwater concentrations are below cleanup goals. The 2016 FYR Report noted that most of the site area, which includes the capped landfill areas, is unused and heavily wooded. The easternmost portion of the Site is in municipal and industrial use. Although the perimeter of the Site is not fenced, access is assumed to be limited due to dense vegetation around the northern, western and southern boundaries. The primary access route from the east directs traffic past the city public works garage and is restricted by a gate, which further restricts access to the Site. Because a site inspection could not be conducted for this FYR, the EPA was unable to confirm current conditions.

Land use is not expected to change. The on-site businesses and residents and businesses in the area rely on the public water supply for their drinking water. Landfill caps are in place. There are currently no exposure pathways to contamination and institutional controls are in place to restrict groundwater use.

The 1993 ROD established maximum contaminant levels (MCLs) as the groundwater performance standards for beryllium, cadmium and chromium and the EPA action level as the groundwater performance standard for lead. These standards have not changed and remain valid (Appendix J).

The 1996 ESD established a health-based groundwater performance standard for manganese. Table J-1 in Appendix J shows that the manganese performance standard results in a non-cancer hazard quotient (HQ) above the EPA's threshold of 1. However, the EPA previously demonstrated that manganese in groundwater is not site-related. Groundwater is not used for drinking water at the Site and institutional controls are in place to restrict future use of groundwater. Therefore, the change in toxicity data for manganese does not affect protectiveness of the remedy.

The purpose of the remedial action is to prevent current and future exposure to the landfill wastes and contaminated groundwater, and to reduce the migration of contaminants. This goal remains valid. However, to ensure that the remedial action prevents future exposure to the landfill wastes, an O&M program needs to be implemented.

QUESTION C: Has any other information come to light that could call into question the protectiveness of the remedy?

No other information has come to light that could call into question the protectiveness of the remedy.

VI. ISSUES/RECOMMENDATIONS

Issues/Recommendations	
OU(s) without Issues/Recommendations Identified in the FYR:	
None	

Issues and Recommendations Identified in the FYR:

OU(s): OU-1 (Sitewide)	Issue Category: Operations and Maintenance			
	<p>Issue: The PRPs have not been conducting inspections and maintenance of the landfill cap areas and groundwater monitoring wells. There is no current O&M Plan in place.</p> <p>Recommendation: Prepare and implement an O&M Plan for the landfill cap areas and monitoring well network. The O&M Plan should document the locations of all landfill cap areas and monitoring wells, and include procedures for inspection and maintenance, frequency of the activities and documentation requirements.</p>			
Affect Current Protectiveiveness	Affect Future Protectiveiveness	Party Responsible	Oversight Party	Milestone Date
No	Yes	PRP	EPA/State	3/27/2022

OU(s): OU-1 (Sitewide)	Issue Category: Monitoring			
	<p>Issue: Methane gas buildup in monitoring well CL-08-WT was observed during the 2021 sampling event.</p> <p>Recommendation: Evaluate the need for further monitoring and/or venting of methane gas at the Site.</p>			
Affect Current Protectiveiveness	Affect Future Protectiveiveness	Party Responsible	Oversight Party	Milestone Date
No	Yes	PRP	EPA/State	3/27/2022

OTHER FINDINGS

Due to the COVID-19 pandemic, the EPA did not conduct a site inspection for this FYR.

During the April 2021 monitoring event, the city of Cedartown's contractor could not locate several monitoring wells and monitoring well LW-2 was damaged and could not be sampled.

VII. PROTECTIVENESS STATEMENT

Sitewide Protectiveness Statement	
<i>Protectiveness Determination:</i>	Short-term Protective
<i>Protectiveness Statement:</i>	The Site's remedy currently protects human health and the environment because there are no completed exposure pathways between contamination and receptors. Landfill caps prevent exposure to waste, and historic groundwater monitoring data demonstrate that site-related contaminants in groundwater are below cleanup goals. For the remedy to be protective in the long term, an O&M Plan should be prepared, and an evaluation be conducted to determine if there is a need for methane monitoring/venting.

VIII. NEXT REVIEW

The next FYR Report for the Cedartown Municipal Landfill Superfund site is required five years from the completion date of this review.

APPENDIX A – REFERENCE LIST

Amended Record of Decision, Summary of Remedial Alternative Selection, Cedartown Municipal Landfill Site, Cedartown, Polk County, Georgia. EPA Region 4. May 1998.

Explanation of Significant Differences, Cedartown Municipal Landfill Site, Cedartown, Polk County, Georgia. EPA Region 4. June 1996.

Fourth Five-Year Review Report for Cedartown Municipal Landfill Superfund Site, Polk County, Georgia. EPA Region 4. September 2016.

Record of Decision, Summary of Remedial Alternative Selection, Cedartown Municipal Landfill Site, Cedartown, Polk County, Georgia. EPA Region 4. November 1993.

Remedial Investigation Report, Cedartown Municipal Landfill Site, Cedartown, Georgia. Conestoga-Rovers & Associates. June 1992.

Report of Natural Attenuation Monitoring, Former Municipal Landfill Site, Cedartown, Georgia. Geo-Hydro Engineers, Inc. June 22, 2021.

Second Five-Year Review Report for Cedartown Municipal Landfill Site, Cedartown, Polk County, Georgia. EPA Region 4. September 2006.

Site Analysis, Cedartown Landfill, Cedartown, Georgia. EPA Environmental Monitoring Systems Laboratory. April 1987.

Third Five-Year Review Report for Cedartown Municipal Landfill Site, Cedartown, Polk County, Georgia. U.S. Army Corps of Engineers for EPA Region 4. September 2011.

Unilateral Administrative Order for Remedial Design and Remedial Action, EPA Region 4. March 1994.

APPENDIX B – CURRENT SITE STATUS

Environmental Indicators

- *Current human exposures at the Site are under control.*
- *Current groundwater migration is under control.*

Are Necessary Institutional Controls in Place?

- All Some None

Has EPA Designated the Site as Sitewide Ready for Anticipated Use?

- Yes No

Has the Site Been Put into Reuse?

- Yes No

The eastern portion of the Site is in municipal/industrial use.

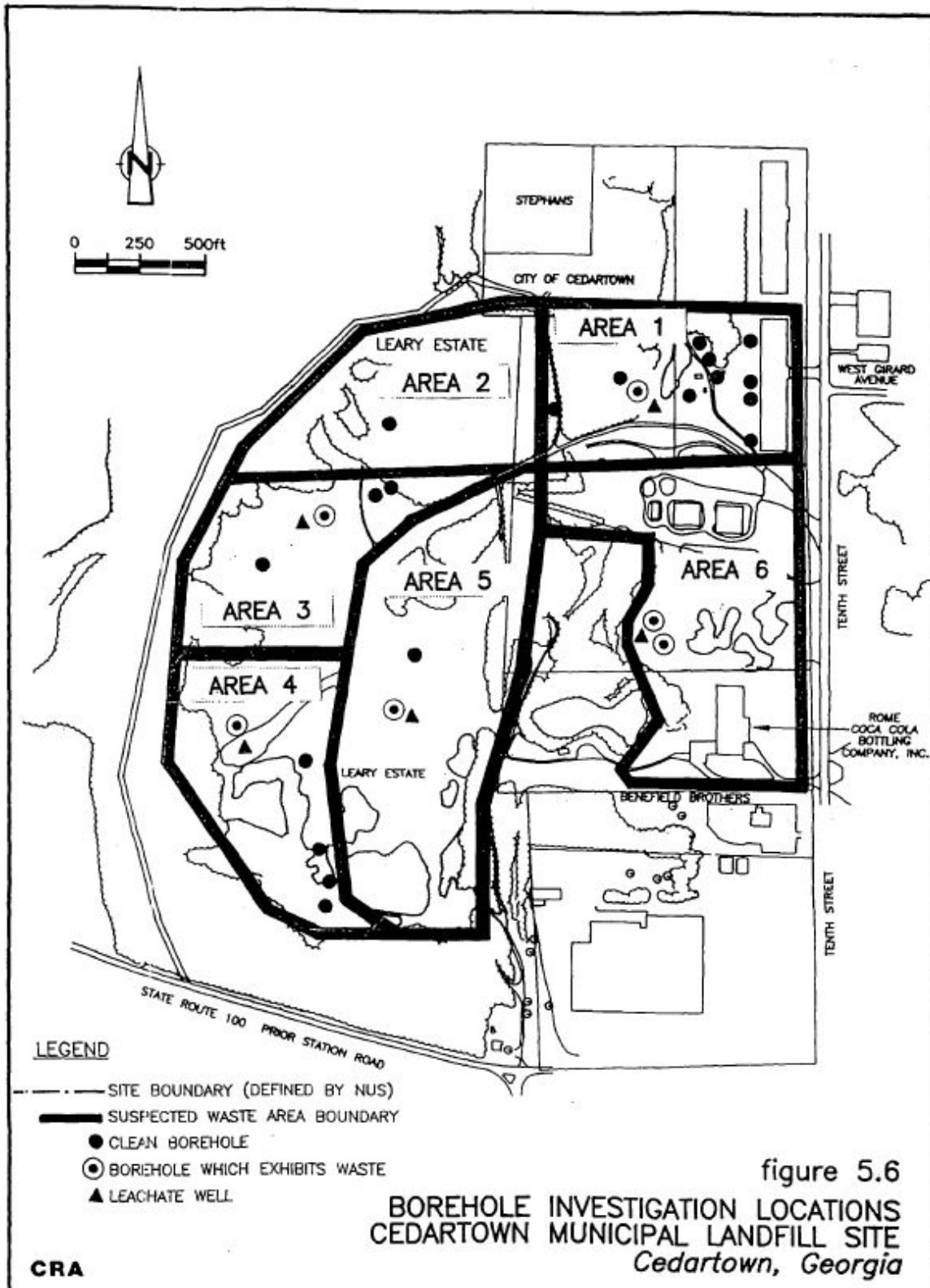
APPENDIX C – SITE CHRONOLOGY

Table C-1: Site Chronology

Event	Date
Mining operations began	1880s
Landfill operations occurred	Mid-1900s to 1979
The EPA conducted an initial site inspection	1985
The EPA conducted additional investigations	1986 to 1988
The EPA proposed the Site for listing on the NPL	June 1988
The EPA listed the Site on the NPL	March 1989
The EPA and PRPs entered into an AOC to conduct an RI/FS; the PRPs began the RI/FS	March 1990
The PRPs completed the RI/FS; the EPA issued the ROD	November 1993
The EPA issued a Unilateral Administrative Order to the PRPs to implement the remedy; the PRPs began the remedial design	May 1994
The PRPs completed the remedial design and began the remedial action	November 1994
The PRPs implemented a groundwater monitoring program	January 1995
The PRPs implemented institutional controls on the city of Cedartown properties	June 1995
The EPA issued an AOC	September 1995
The EPA issued an ESD to modify the manganese performance standard	June 1996
The EPA prepared the preliminary close-out report, signifying construction completion	August 1996
The EPA issued an AROD	May 1998
The EPA deleted the Site from the NPL	March 1999
The EPA issued the first FYR Report	September 2001
The EPA issued the second FYR Report	September 2006
The Site achieved the Sitewide Ready for Anticipated Reuse performance measure	January 2011
The EPA issued the third FYR Report	September 2011
The EPA issued the fourth FYR Report	September 2016
The PRPs conducted a groundwater and surface water monitoring event.	April 2021

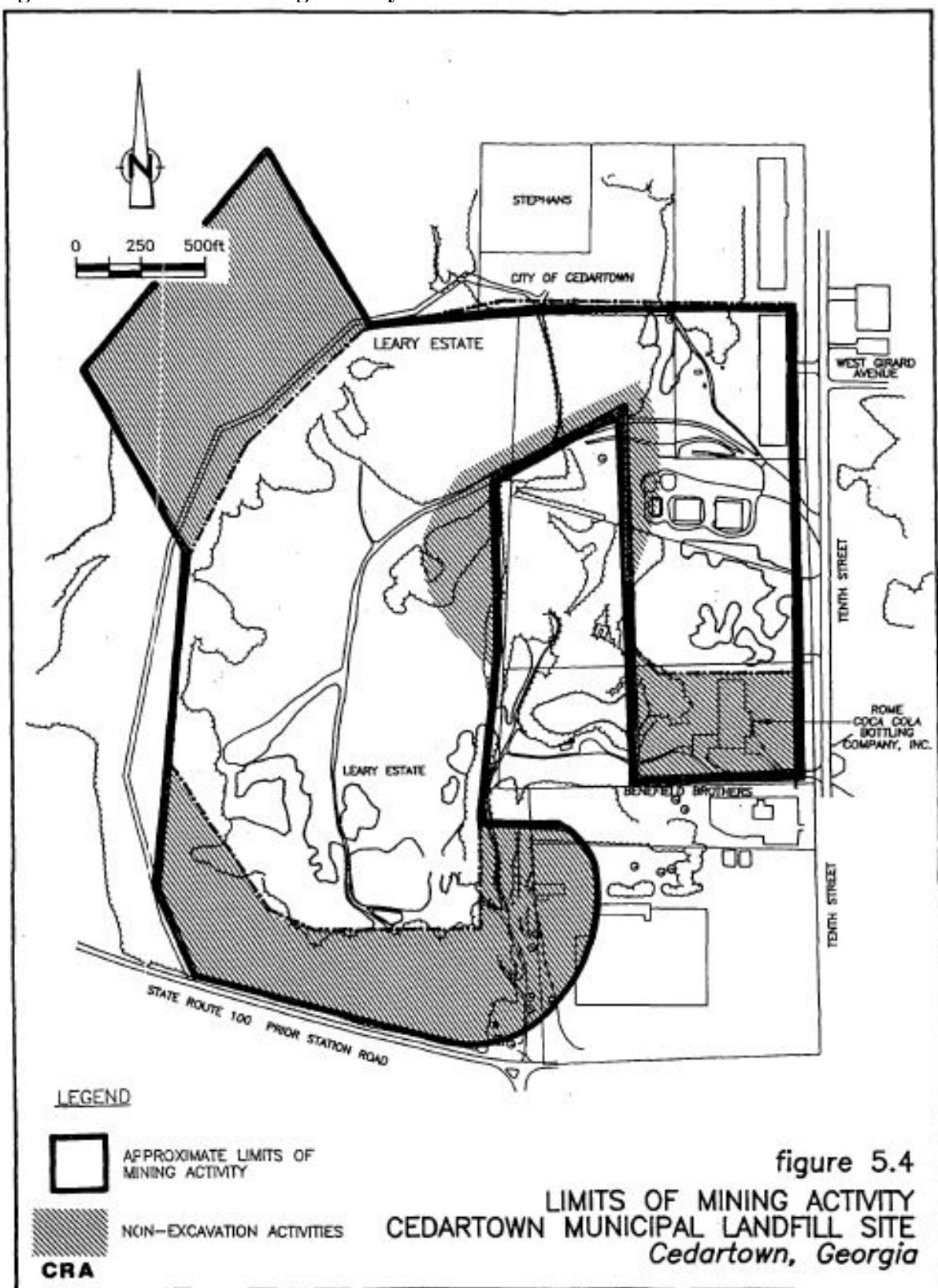
APPENDIX D – HISTORICAL SITE MAP

Figure D-1: Borehole Investigation Locations



Source: Figure 5.6, 1992 RI Report

Figure D-2: Limits of Mining Activity



Source: Figure 5.4, 1993 RI Report

APPENDIX E – INSTITUTIONAL CONTROLS

Cedartown Ordinance

3/1/2021

Cedartown, GA Code of Ordinances

(Code 1969, § 11-116)

Sec. 50-80. - No new wells authorized.

- (a) It shall be unlawful for any person, firm or corporation to begin the boring of any well within the corporate limits of the city unless the person shall have first obtained written permission from the city manager authorizing the boring of the well, pursuant to whatever reasonable rules and regulations the city manager may promulgate for such operations, for industrial purposes only pursuant to subsection (b) hereof.
- (b) The purpose of any such well which might be authorized pursuant to subsection (a) of this section would be for a very specific industrial purpose where the party is unable to use treated water from the city for such industrial purpose. No wells would be authorized for any commercial or residential purposes.

(Code 1969, § 11-117)

Sec. 50-81. - Lakes, other permanent water structures.

- (a) It shall be unlawful for any agency of the federal, state or local government, any instrumentality, agent or employee thereof, to hereafter erect, build, maintain or otherwise implement any plan to erect a lake, permanent water retention structure, pond or similar such improvement within the corporate limits of the city unless all of the following three criteria for the construction of the project are used in connection with the design of any such structure:
 - (1) The dam and lake project construction shall comply with all minimum requirements of state and federal law concerning its construction, and shall meet all of the provisions of the department of public health of the state and local county department of public health, as to all criteria which might affect the storage of water upon the site.
 - (2) The minimum depth of the permanent water pool area of the site shall in no event and at no location be less than two feet.
 - (3) At least 75 percent of the storage area in the permanent water pool shall have a minimum depth of three feet. Storage area shall be defined as the capacity in acres (or parts thereof) of the permanent pool of water which is to be impounded at the site.
- (b) Any person, firm or corporation acting on behalf of any federal, state or local government, that violates the provisions of subsection (a) of this section shall be punished as provided in section 1-13 of this Code. Any construction, or other improvement, in violation of the minimum requirements set forth in subsection (a) of this section shall also constitute a continuing nuisance and health hazard to the citizens of the city.

(Code 1969, §§ 11-118, 11-119)

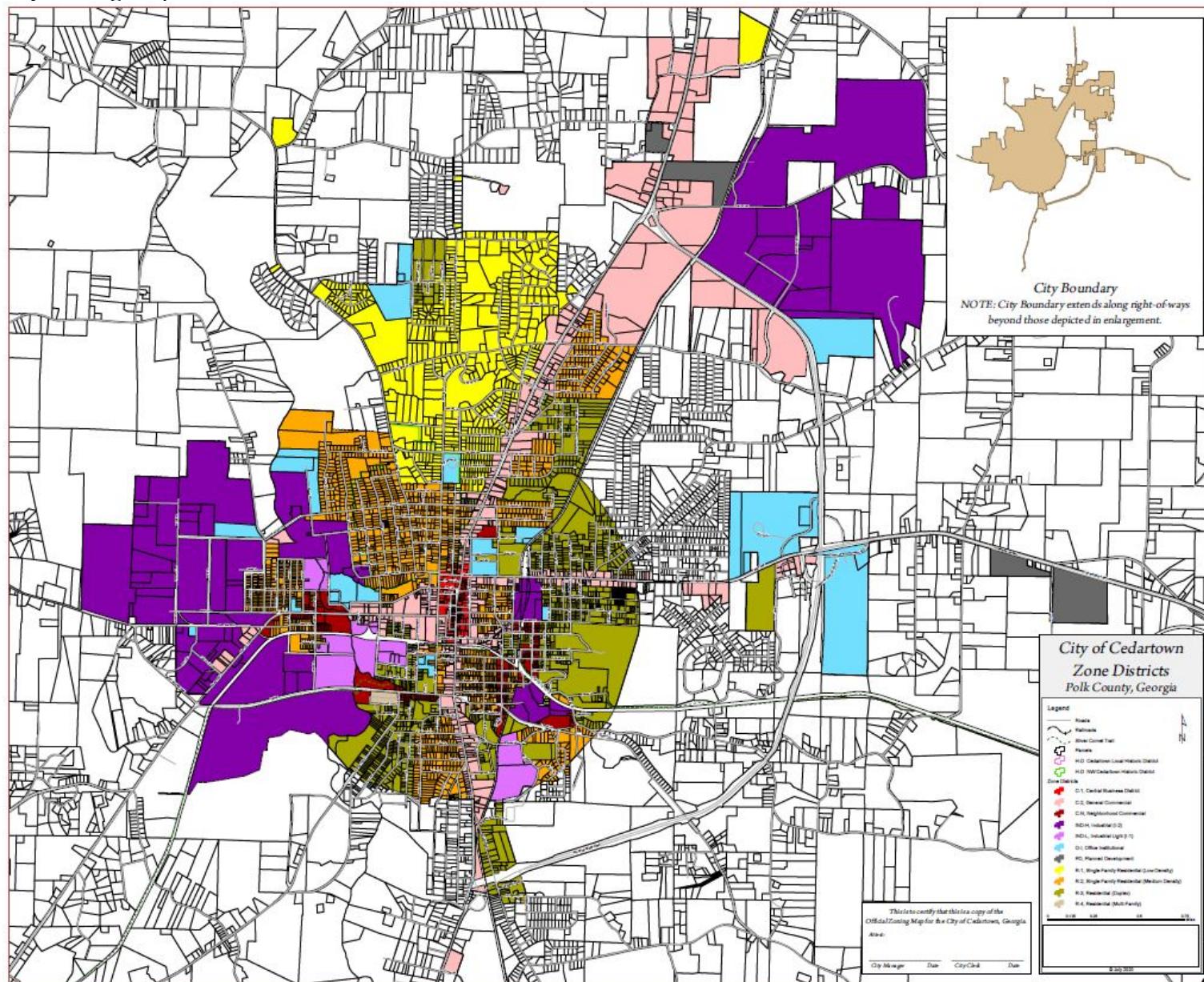
Cross reference— Obstruction of natural flow of water, § 38-39.

2/3

Source:

https://library.municode.com/ga/cedartown/codes/code_of_ordinances?nodeId=PTIICOOR_CH50HESA_ARTIV_WECILA_S50-80NONEAU (accessed 3/1/2021)

City Zoning Map



Source: https://cedartowngeorgia.gov/wp-content/uploads/2020/10/cedartown_zoning_36x44_2020_07_17.pdf (accessed 3/1/2021)

Affidavit for Affected Properties

BOOK 517 PAGE 665

IN RE: CEDARTOWN MUNICIPAL LANDFILL SITE
PRESENT OWNER: CITY OF CEDARTOWN
HAZARDOUS SITE INVENTORY NO.: 10092
LOCATION: 10TH STREET (1.8 MILES WEST OF CEDARTOWN)
GEORGIA,
POLK COUNTY.

AFFIDAVIT AFFECTING TITLE

Comes now Bert Wood, Chairman of the Cedartown City Commission, who on oath swears and states that the facts contained in this affidavit are true and correct, to the best of his knowledge and belief. This Affidavit is made by the undersigned deponent, through action of the Cedartown City Commission, the governing authority of the City of Cedartown in Polk County, Georgia. Based upon this knowledge and Authority, the deponent states in his official capacity as Chairman of the Cedartown City Commission, as follows:

1.

The City of Cedartown owns property, or is in the process of acquiring title to property, which has been placed on the Hazardous Site Inventory of the State of Georgia by action of the Environmental Protection Division.

2.

By action of the City Commission of the City of Cedartown, the property described in Exhibits "A", "B", and "C" respectively which generally depict all of the area in which the applicable notice is required by Georgia Law. This area is the general location of the former Cdartown Municipal Landfill.

3.

As to this real property, and pursuant to the provisions of Georgia Law, the following provision applies:

"This property has been listed on the state's hazardous site inventory and has been designated as needing corrective action due to the presence of hazardous wastes, hazardous constituents, or hazardous substances regulated under state law. Contact the property owner or the Georgia Environmental Protection Division for further information concerning this property. This notice is

RETURN TO: PAUL L. JAMES
YORK, MCRAE & YORK
P.O. BOX 246
CEDARTOWN, GEORGIA 30125

provided in compliance with Georgia Hazardous Site Response Act."

This Affidavit is made for reliance by attorneys who may certify any right, title or interest in this property, title insurance companies, lending institutions or any other parties who may rely upon these recorded facts and this certificate as being true and correct representation of the facts contained herein.

Further this deponent saith not. Executed this the 16th day of June, 1995.

Bert Wood
BERT WOOD, CHAIRMAN
CEDARTOWN CITY COMMISSION

Sworn to and subscribed before
me this 16th day of June, 1995,
1994.

Tonyly C. New
NOTARY PUBLIC
NOTARY PUBLIC, POLK COUNTY, GA
MY COMMISSION EXPIRES JUNE 26, 1997
EXECUTED BEFORE ME
THIS 16th DAY OF June 19 95

Georgia, Polk County
Filed in Office this 19 day of June
19 95 at 3:12 Recorded in Deed
Book 517 Page 665 This 21
day of June 19 95.

Sandra W. Dailey, Clerk

WARRANTY DEED

STATE OF GEORGIA,

COUNTY OF POLK

THIS INDENTURE, made this _____ day of _____
in the Year of Our Lord One Thousand Nine Hundred and Ninety-Five
(1995) between AMSOUTH BANK CORPORATION, AS TRUSTEE OF THE ESTATE
OF WILLIAM LEARY, of the first part and CITY OF CEDARTOWN, A
MUNICIPAL CORPORATION, of the second part.

WITNESSETH: That the said party of the first part, for
and in consideration of the sum of One Dollar (\$1.00) and Other
valuable considerations, in hand paid at and before the sealing and
delivery of these presents, the receipt whereof is hereby
acknowledged, has granted, bargained, sold and conveyed and by
these presents does grant, bargain, sell and convey unto the said
party of the second part, its successors and assigns, all that
tract or parcel of land lying and being in Polk County, Georgia,
and more particularly described as follows:

All that tract or parcel of land lying and being in Land Lots 664,
663 and 662, in the 2nd District and 4th Section of Polk County,
Georgia, and being more particularly described as follows:

BEGINNING at a 1/2 rebar set at the intersection of the East Land
Lot Line of Land Lot 664 with the Northerly right of way line of
Prior Station Road, State Route 100 (a 60 foot right of way);
running thence North 76° 08' 51" West along the Northerly right of
way line of Prior Station Road, State Route 100 a distance of
652.18 feet to a point; continuing thence North 74° 05' 31" West
along said right of way line a distance of 791.75 feet to a 1/2
inch rebar set at the intersection of said right of way line with
the West Land Lot Line of Land Lot 663; running thence North 01°
25' 14" East along the West Land Lot Line of Land Lot 663 a
distance of 1116.01 feet to a 1/2 inch rebar set at the Northwest
corner said Land Lot (said point also being the Southwest corner of
Land Lot 662); running thence North 01° 25' 14" East along the West
Land Lot Line of Land Lot 662 a distance of 1354.05 feet to a 1/2
inch rebar set at the Northwest corner of said Land Lot; running
thence South 89° 35' 46" East along the North Land Lot Line of Land
Lot 662 a distance of 1467.81 feet to a concrete monument located
at the Northeast corner of said Land Lot; running thence South 03°
46' 14" West along the East Land Lot Lines of Land Lots 662 and 663
a distance of 1795.83 feet to a 1/2 inch rebar set; running thence
South 01° 15' 48" West along the East Land Lot Lines of Land Lots
663 and 664 a distance of 823.38 feet to a 1/2 inch rebar set; and
running thence South 00° 29' 46" East along the East Land Lot Line
of Land Lot 664 a distance of 217 feet to a 1/2 inch rebar set at
the intersection of said Land Lot Line with the Northerly right of
way line of Prior Station Road, State Route 100 and the point of
beginning.

The above described property is more particularly shown according
to a Plat and Survey made by Elbert H. Angel, Registered Surveyor,
dated July 15, 1994, revised March 8, 1995, recorded in Plat Book
_____, Page ___, Polk County, Georgia Deed Records, reference to
which plat is hereby made for a more detailed description thereof.

EXHIBIT A, page 1 of 2

THIS PROPERTY HAS BEEN LISTED ON THE STATE'S HAZARDOUS SITE INVENTORY AND HAS BEEN DESIGNATED AS NEEDING CORRECTIVE ACTION DUE TO THE PRESENCE OF HAZARDOUS WASTES, HAZARDOUS CONSTITUENTS, OR HAZARDOUS SUBSTANCES REGULATED UNDER STATE LAW. CONTACT THE PROPERTY OWNER OR THE GEORGIA ENVIRONMENTAL PROTECTION DIVISION FOR FURTHER INFORMATION CONCERNING THIS PROPERTY. THIS NOTICE IS PROVIDED IN COMPLIANCE WITH THE GEORGIA HAZARDOUS SITE RESPONSE ACT.

TO HAVE AND TO HOLD the said bargained premises, together with all and singular the rights, members and appurtenances thereof, to the same being, belonging or in anywise appertaining, to the only proper use, benefit and behoof of the said party of the second part, its successors and assigns, forever, IN FEE SIMPLE.

And the said party of the first part, for its successors and assigns, will warrant and forever defend the right and title to the above described property unto the said party of the second part, its successors and assigns against the lawful claims of all persons whomsoever.

IN WITNESS WHEREOF, the said party of the first part has hereunto set its hand and affixed its seal by and through its duly authorized officers, the day and year first above written.

AM SOUTH BANK CORPORATION, AS
TRUSTEE OF THE ESTATE OF
WILLIAM LEARY

BY: _____

ATTEST: _____

Signed, sealed and delivered
in the presence of:

WITNESS _____

NOTARY PUBLIC _____

Prepared by:
York, McRae & York
Attorneys at Law
P. O. Box 246

Page 2

WARRANTY DEED

STATE OF GEORGIA,

COUNTY OF POLK

THIS INDENTURE, made this _____ day of _____
in the Year of Our Lord One Thousand Nine Hundred and Ninety-Five
(1995) between THE HON COMPANY, of the first part and CITY OF
CEDARTOWN, A MUNICIPAL CORPORATION, of the second part.

WITNESSETH: That the said party of the first part, for
and in consideration of the sum of One Dollar (\$1.00) and Other
valuable considerations, in hand paid at and before the sealing and
delivery of these presents, the receipt whereof is hereby
acknowledged, has granted, bargained, sold and conveyed and by
these presents does grant, bargain, sell and convey unto the said
party of the second part, its successors and assigns, all that
tract or parcel of land lying and being in Polk County, Georgia,
and more particularly described as follows:

All that tract or parcel of land lying and being in Land Lot 707,
in the 2nd District and 4th Section of Polk County, Georgia, and
being more particularly described as follows:

BEGINNING at a 1/2 inch rebar located on the South Land Lot Line of
Land Lot 707, which said rebar is located a distance of 62 feet
West, as measured along said Land Lot Line, from the intersection
of said Land Lot Line with the West right of way line of Tenth
Street (a 100 foot right of way); running thence South 89° 34' 50"
West along the South Land Lot Line of Land Lot 707 a distance of
1119 feet to a 1 inch pipe located at the Southwest corner of said
Land Lot; running thence North 03° 46' 14" East along the West Land
Lot Line of Land Lot 707 a distance of 663.80 feet to a concrete
monument; running thence South 73° 36' 37" East a distance of
1122.41 feet to a point; and running thence South 00° 15' 14" West
a distance of 337.47 feet to a 1/2 inch rebar located on the South
Land Lot Line of Land Lot 707 and the point of beginning.

The above described property contains 12.68 acres and is more
particularly designated as Tract Two according to a Plat and Survey
made by Elbert H. Angel, Registered Surveyor, dated July 15, 1994,
revised January 18, 1995, recorded in Plat Book ___, Page ___,
Polk County, Georgia Deed Records, reference to which plat is
hereby made for a more detailed description thereof.

THIS PROPERTY HAS BEEN LISTED ON THE STATE'S HAZARDOUS SITE
INVENTORY AND HAS BEEN DESIGNATED AS NEEDING CORRECTIVE ACTION DUE
TO THE PRESENCE OF HAZARDOUS WASTES, HAZARDOUS CONSTITUENTS, OR
HAZARDOUS SUBSTANCES REGULATED UNDER STATE LAW. CONTACT THE
PROPERTY OWNER OR THE GEORGIA ENVIRONMENTAL PROTECTION DIVISION FOR
FURTHER INFORMATION CONCERNING THIS PROPERTY. THIS NOTICE IS
PROVIDED IN COMPLIANCE WITH THE GEORGIA HAZARDOUS SITE RESPONSE
ACT.

TO HAVE AND TO HOLD the said bargained premises, together
with all and singular the rights, members and appurtenances
thereof, to the same being, belonging or in anywise appertaining,

EXHIBIT B, page 1 of 2

to the only proper use, benefit and behoof of the said party of the second part, its successors and assigns, forever, IN FEE SIMPLE.

And the said party of the first part, for its successors and assigns, will warrant and forever defend the right and title to the above described property unto the said party of the second part, its successors and assigns against the lawful claims of all persons whomsoever.

IN WITNESS WHEREOF, the said party of the first part has hereunto set its hand and affixed its seal by and through its duly authorized officers, the day and year first above written.

THE HON COMPANY

BY: _____

ATTEST: _____

Signed, sealed and delivered
in the presence of:

WITNESS _____

NOTARY PUBLIC _____

Prepared by:
York, McRae & York
Attorneys at Law
P. O. Box 246
Cedartown, Georgia 30125

Pg. 2

WARRANTY DEED

STATE OF GEORGIA,

COUNTY OF POLK

THIS INDENTURE, made this _____ day of _____
 in the Year of Our Lord One Thousand Nine Hundred and Ninety-Five
 (1995) between TILLEY PROPERTIES, INC., of the first part and CITY
 OF CEDARTOWN, A MUNICIPAL CORPORATION, of the second part.

WITNESSETH: That the said party of the first part, for
 and in consideration of the sum of One Dollar (\$1.00) and Other
 valuable considerations, in hand paid at and before the sealing and
 delivery of these presents, the receipt whereof is hereby
 acknowledged, has granted, bargained, sold and conveyed and by
 these presents does grant, bargain, sell and convey unto the said
 party of the second part, its successors and assigns, all that
 tract or parcel of land lying and being in Polk County, Georgia,
 and more particularly described as follows:

All that tract or parcel of land lying and being in Land Lot 706,
 in the 2nd District and 4th Section of Polk County, Georgia, and
 being more particularly described as follows:

BEGINNING at a 1/2 inch rebar set on the North Land Lot Line of
 Land Lot 706, which said rebar is located a distance of 478.30 feet
 West, as measured along said Land Lot Line, from the intersection
 of said Land Lot Line with the West right of way line of Tenth
 Street (a 100 foot right of way); running thence South 22° 52' 43"
 West a distance of 500.08 feet to a 1/2 inch rebar set; running
 thence South 89° 38' 14" West a distance of 538.52 feet to a 1/2
 inch rebar located on the West Land Lot Line of Land Lot 706;
 running thence North 03° 46' 14" East along the West Land Lot Line
 of Land Lot 706 a distance of 460 feet to a 1 inch pipe located at
 the Northwest corner of said Land Lot; running thence North 89° 34'
 50" East along the North Land Lot Line of Land Lot 706 a distance
 of 702.70 feet to a 1/2 inch rebar located at the point of
 beginning.

The above described property contains 6.54 acres and is more
 particularly designated as Tract Two according to a Plat and Survey
 made by Elbert H. Angal, Registered Surveyor, dated July 15, 1994,
 recorded in Plat Book ___, Page ___, Polk County, Georgia Deed
 Records, reference to which plat is hereby made for a more detailed
 description thereof.

THIS PROPERTY HAS BEEN LISTED ON THE STATE'S HAZARDOUS SITE
 INVENTORY AND HAS BEEN DESIGNATED AS NEEDING CORRECTIVE ACTION DUE
 TO THE PRESENCE OF HAZARDOUS WASTES, HAZARDOUS CONSTITUENTS, OR
 HAZARDOUS SUBSTANCES REGULATED UNDER STATE LAW. CONTACT THE
 PROPERTY OWNER OR THE GEORGIA ENVIRONMENTAL PROTECTION DIVISION FOR
 FURTHER INFORMATION CONCERNING THIS PROPERTY. THIS NOTICE IS
 PROVIDED IN COMPLIANCE WITH THE GEORGIA HAZARDOUS SITE RESPONSE
 ACT.

TO HAVE AND TO HOLD the said bargained premises, together
 with all and singular the rights, members and appurtenances

EXHIBIT C, page 1 of 2

thereof, to the same being, belonging or in anywise appertaining, to the only proper use, benefit and behoof of the said party of the second part, its successors and assigns, forever, IN FEE SIMPLE.

And the said party of the first part, for its successors and assigns, will warrant and forever defend the right and title to the above described property unto the said party of the second part, its successors and assigns against the lawful claims of all persons whomsoever.

IN WITNESS WHEREOF, the said party of the first part has hereunto set its hand and affixed its seal by and through its duly authorized officers, the day and year first above written.

TILLEY PROPERTIES, INC.

BY: _____

ATTEST: _____

Signed, sealed and delivered
in the presence of:

WITNESS

NOTARY PUBLIC

Prepared by:
York, McRae & York
Attorneys at Law
P. O. Box 246
Cedartown, Georgia 30125

Georgia, Polk County,
Filed in Office this 19 day of June,
1995 at 3:12 Recorded in Deed
Book 517 Page 665 This 21
day of June, 1995.

Sandie W. Dailey, Clerk

Page 2

APPENDIX F – PRESS NOTICE



The U.S. Environmental Protection Agency, Region 4 Announces the Fifth Five-Year Review for the

Cedartown Municipal Landfill Superfund Site,

Cedartown, Polk County, Georgia

Purpose/Objective: The EPA is conducting a Five-Year Review of the remedy for the Cedartown Municipal Landfill Superfund site (the Site) in Cedartown, Georgia. The purpose of the Five-Year Review is to make sure the selected cleanup actions effectively protect human health and the environment.

Site Background: The 94-acre Site is located in Cedartown, Georgia, about 62 miles northwest of Atlanta. The Site includes the area where an iron ore mine and then a municipal landfill operated from the 1880s to 1979. Landfill operations included disposal of municipal and industrial wastes in open pits from the mining operation. The landfill was covered with a layer of clay and a vegetative cover when it closed in 1979. Landfilling activities contaminated groundwater with manganese, beryllium, cadmium, chromium and lead. The EPA listed the Site on the Superfund program's National Priorities List (NPL) in 1989. Following cleanup, the EPA deleted the Site from the NPL in 1999.

Cleanup Actions: The EPA selected a remedy for the Site in a 1993 Record of Decision (ROD) and updated the remedy with a 1996 Explanation of Significant Differences (ESD) and 1998 ROD Amendment. The remedy includes maintenance of the landfill cover and institutional controls to restrict groundwater use beneath and immediately surrounding the Site. The 1998 ROD Amendment also required groundwater sampling as part of the first Five-Year Review. Although not required by the decision documents, additional groundwater sampling events occurred as part of the second and fourth Five-Year Reviews.

Five-Year Review Schedule: The National Contingency Plan is a law that requires review of remedial actions that result in any hazardous substances, pollutants or contaminants remaining at the Site above levels that allow for unlimited use and unrestricted exposure every five years to ensure the protection of human health and the environment. The fifth Five-Year Review for the Site will be completed by September 2021. When the Five-Year Review is completed, it will be available online at: <https://www.epa.gov/superfund/search-superfund-five-year-reviews>.

EPA Invites Community Participation in the Five-Year Review Process: The EPA is conducting this Five-Year Review to evaluate the effectiveness of the Site's remedy and to ensure that the remedy remains protective of human health and the environment. As part of the Five-Year Review process, EPA staff is available to answer any questions about the Site. Community members who have questions about the Site or the Five-Year Review process, or who would like to participate in a community interview, are asked to contact:

Brian Farrier, EPA Remedial Project Manager

Phone: (404) 562-8952

Email: farrer.brian@epa.gov

Ron Tolliver, EPA Community Involvement Coordinator

Phone: (404) 562-9591

Email: tolliver.ronald@epa.gov

Mailing Address: U.S. EPA Region 4, 61 Forsyth Street, S.W., 11th Floor, Atlanta, GA 30303-8960

Additional information is available at the Site's local document repository, located at the Cedartown Public Library, 245 East Avenue, Cedartown, Georgia 30125 (consider contacting the library to confirm it is open), and online at: www.epa.gov/superfund/cedartown-municipal-landfill.

11-25, 2020

APPENDIX G – INTERVIEW FORMS

CEDARTOWN MUNICIPAL LANDFILL SUPERFUND SITE FIVE-YEAR REVIEW INTERVIEW FORM	
Site Name: Cedartown Municipal Landfill	
EPA ID: GAD980495402	
Interviewer name: J. Billus	Interviewer affiliation: Skeo, FYR contractor
Subject name: Yi Lu	Subject affiliation: GAEPD
Interview date: 1/22/2021	Interview time: n/a
Interview location: Office	
Interview format (identify one): In Person Phone Mail <u>Email</u> Other:	
Interview category: State Agency	

1. What is your overall impression of the project, including cleanup, maintenance and reuse activities (as appropriate)?

The Site was an iron mine and back filled with municipal and industrial waste, which was covered by a layer of clean soil. Overgrown trees and shrubs help prevent soil erosion. There were hunting activities at the Site. City personnel inspected the monitoring wells after hurricanes. Reuse of the Site is not known to be planned.

2. What is your assessment of the current performance of the remedy in place at the Site?

Monitored natural attenuation is effective.

3. Are you aware of any complaints or inquiries regarding site-related environmental issues or remedial activities from residents in the past five years?

No, I haven't heard any complaints or inquiries regarding the Site since the last five-year review.

4. Has your office conducted any site-related activities or communications in the past five years? If so, please describe the purpose and results of these activities.

Our office discussed with the EPA on placing deed restrictions on properties within the footprint of the former landfill. Further actions have not been taken.

5. Are you aware of any changes to state laws that might affect the protectiveness of the Site's remedy?

No, I am not aware of any changes to state laws that might affect the Site's remedy.

6. Are you comfortable with the status of the institutional controls at the Site? If not, what are the associated outstanding issues?

Institutional controls covered the major portion of the former landfill. Three parcels were left out as indicated in the last five-year review. Deed notices should be drafted for these parcels.

7. Are you aware of any changes in projected land use(s) at the Site?

No.

8. Do you have any comments, suggestions or recommendations regarding the management or operation of the Site's remedy?

Manganese is associated with the formation of the iron ores and not with the waste. Manganese will remain in groundwater. The Site is ready for reuse.

9. Do you consent to have your name included along with your responses to this questionnaire in the FYR report?

Yes.

CEDARTOWN MUNICIPAL LANDFILL SUPERFUND SITE FIVE-YEAR REVIEW INTERVIEW FORM	
Site Name: Cedartown Municipal Landfill	
EPA ID: GAD980495402	
Interviewer name: J. Billus	Interviewer affiliation: Skeo, FYR contractor
Subject name: Edward Guzman	Subject affiliation: City Manager, Cedartown
Interview date: n/a	Interview time: n/a
Interview location: n/a	
Interview format (identify one): In Person Phone Mail <u>Email</u> Other:	
Interview category: Local Government	

1. Are you aware of the former environmental issues at the Site and the cleanup activities that have taken place to date?

Yes.

2. Do you feel well-informed regarding the Site's activities and remedial progress? If not, how might EPA convey site-related information in the future?

Yes.

3. Have there been any problems with unusual or unexpected activities at the Site, such as emergency response, vandalism or trespassing?

Very rare but trespassing may have occurred.

4. Are you aware of any changes to state laws or local regulations that might affect the protectiveness of the Site's remedy?

No.

5. Are you aware of any changes in projected land use(s) at the Site?

No.

6. Has EPA kept involved parties and surrounding neighbors informed of activities at the Site? How can EPA best provide site-related information in the future?

Yes / Informational documents are good. Maybe digital docs as well.

7. Do you have any comments, suggestions or recommendations regarding the project?

Hopeful to see this potentially be a final review.

8. Do you consent to have your name included along with your responses to this questionnaire in the FYR report?

Yes.

CEDARTOWN MUNICIPAL LANDFILL SUPERFUND SITE FIVE-YEAR REVIEW INTERVIEW FORM	
Site Name: Cedartown Municipal Landfill	
EPA ID: GAD980495402	
Interviewer name: J. Billus	Interviewer affiliation: Skeo, FYR contractor
Subject name: Matthew Wray	Subject affiliation: Cedartown Public Works
Interview date: 2/22/2021	Interview time: n/a
Interview location: n/a	
Interview format (identify one): In Person Phone Mail <u>Email</u> Other:	
Interview category: O&M Contractor	

1. What is your overall impression of the project, including cleanup, maintenance and reuse activities (as appropriate)?

We think the project is going well.

2. What is your assessment of the current performance of the remedy in place at the Site?

We think it is going according to plan.

3. Is there an O&M Plan currently in place? Describe O&M activities currently being conducted.

How are the O&M activities documented?

No.

4. What are the findings from the monitoring data? What are the key trends in contaminant levels that are being documented over time at the Site?

We have not received the latest data yet.

5. Is there a continuous on-site O&M presence? If so, please describe staff responsibilities and activities. Alternatively, please describe staff responsibilities and the frequency of site inspections and activities if there is not a continuous on-site O&M presence.

No.

6. Have there been any significant changes in site O&M requirements, maintenance schedules or sampling routines since start-up or in the last five years? If so, do they affect the protectiveness or effectiveness of the remedy? Please describe changes and impacts.

No.

7. Have there been unexpected O&M difficulties or costs at the Site since start-up or in the last five years? If so, please provide details.

No.

8. Have there been opportunities to optimize O&M activities or sampling efforts? Please describe changes and any resulting or desired cost savings or improved efficiencies.

Not to our knowledge.

9. Do you have any comments, suggestions or recommendations regarding O&M activities and schedules at the Site?

No.

10. Do you consent to have your name included along with your responses to this questionnaire in the FYR report?

Yes.

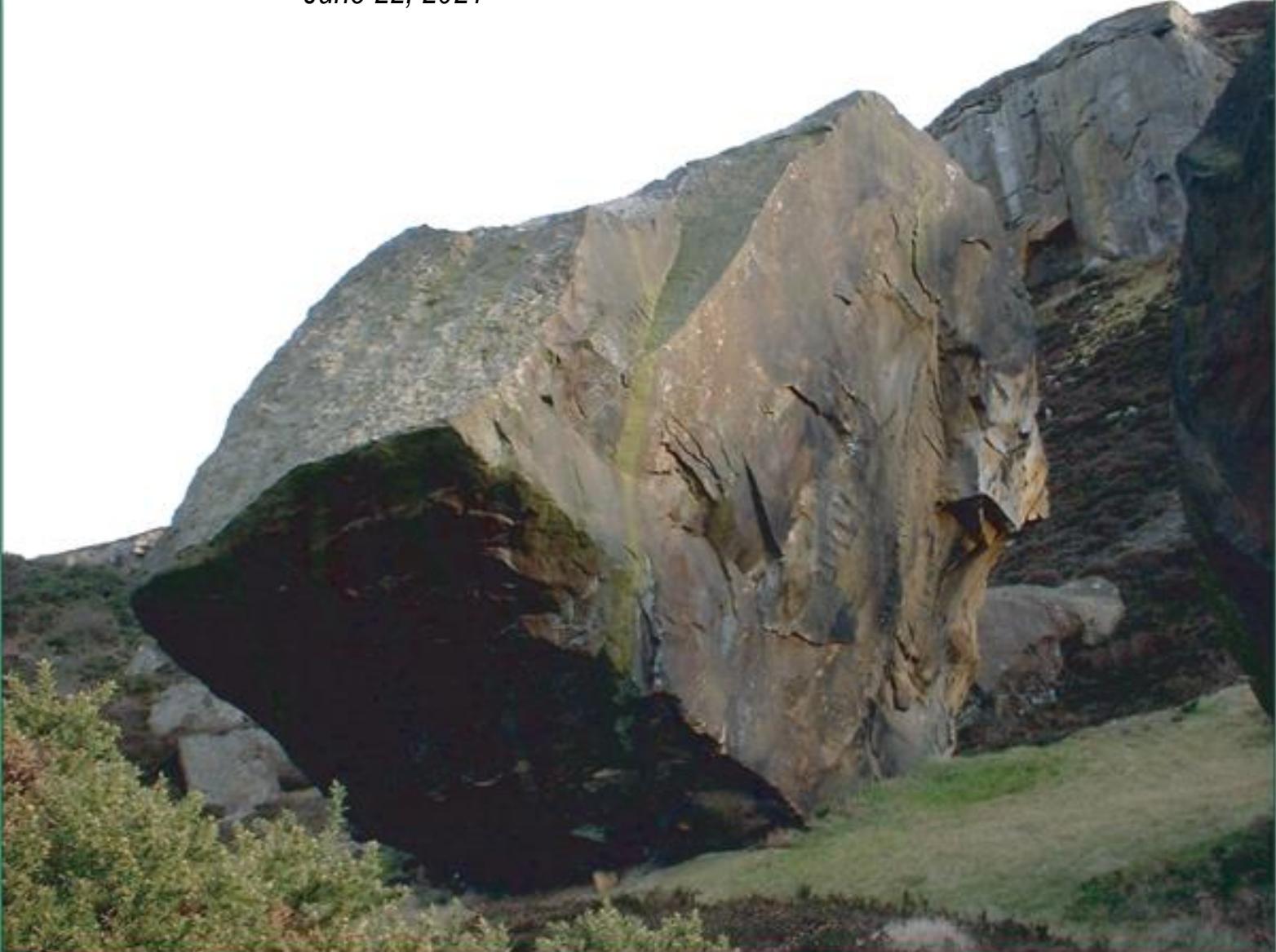
APPENDIX H – 2021 REPORT OF NATURAL ATTENUATION MONITORING



Report of Natural Attenuation Monitoring

Former Municipal Landfill Site
Cedartown, Georgia

*Georgia Environmental Protection Division
Land Protection Branch
June 22, 2021*



Mr. Yi Lu
Georgia Environmental Protection Division
Land Protection Branch
2 Martin Luther King, Jr, Drive
Suite 1054 East Floyd Tower
Atlanta, Georgia 30334

June 22, 2021

**Report of
Natural Attenuation Monitoring
Former Municipal Landfill Site
Cedartown, Georgia
Geo-Hydro Project Number 210305.30**

Dear Mr. Lu:

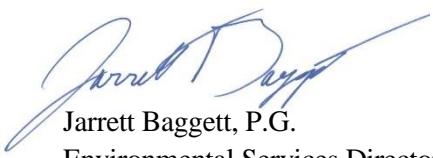
Geo-Hydro Engineers, Inc. (Geo-Hydro) has completed the requested limited natural attenuation monitoring at the approximately 94-acre Former Cedartown Municipal Landfill. Geo-Hydro is submitting this report on behalf of the City of Cedartown for the requested natural attenuation monitoring event at the above referenced facility. The purpose of the natural attenuation monitoring was to analyze groundwater and surface water at the subject property for certain specific chemical analytes requested by the Georgia Environmental Protection Division (EPD). This assessment includes findings, our opinions, and conclusions founded on our review of the monitoring activities and laboratory analytical results. This report and our observations are intended for the benefit of the City of Cedartown, the Georgia EPD, and the United States Environmental Protection Agency (US EPA) and may not be used or relied upon by any other party without Geo-Hydro's prior written consent.

Geo-Hydro Engineers, Inc. has appreciated the opportunity to provide this limited environmental testing. If you have any questions about this report, or if we can be of further assistance, please call us.

Sincerely,

GEO-HYDRO ENGINEERS, INC.


Sam Santoso
Staff Geologist
ssantoso@geohydro.com


Jarrett Baggett, P.G.
Environmental Services Director
jbaggett@geohydro.com

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1.0 PROJECT INFORMATION

The approximately 94-acre Former Cedartown Municipal Landfill is located north of Prior Station Road and west of Tenth Street in Cedartown, Polk County, Georgia. The approximate site location is shown on Figures 1 and 2 in Appendix 1. The purpose of the natural attenuation monitoring was to analyze groundwater and surface water at the subject property for certain specific chemical analytes requested by the Georgia Environmental Protection Division (EPD).

2.0 FIELD PROCEDURES

On April 20, 21, and 22, 2021, Geo-Hydro conducted groundwater and surface water monitoring and sample collection activities at the former Municipal Landfill Site in Cedartown, Georgia. Monitoring well and surface water locations, selected previously by Georgia EPD personnel during a 2016 sampling event were monitored during this event. The monitoring well and surface water locations are shown on Figure 3 in Appendix 1.

2.1 Groundwater Potentiometric Data

Liquid levels were gauged in wells OW-3, OW-4, OW-6B, LW-2, LW-6, and CL-08-WT on April 20, 21, and 22, 2021. Liquid levels were obtained using an electronic optical interface probe (IP), which is capable of distinguishing NAPL from water. The IP was thoroughly cleaned by washing it with an Alconox® solution and rinsing it with deionized water before each measuring event. Liquid levels were measured to the nearest 0.01 foot from the top of each well casing, so that they could be directly compared to a common datum.

Depth-to-groundwater ranged from 3.54 feet below top of casing (BTOC) in monitoring well LW-6 to 30.20 feet BTOC in monitoring well CL-04 during the April 2021 Monitoring event. Previously the March 2016 monitoring event, the groundwater flow direction, based on observation wells OW-1, OW-2, OW-3, OW-4, OW-5, and OW-6B, was predominately to the northeast, which is consistent with historical data. However, the April 2021 monitoring event had significant changes in the area due beaver activity causing changes in the surface water conditions, well damage caused by vegetation, and some wells unable to be located. Monitoring well LW-2 appears to have been damaged by the surrounding vegetation. Surface water sample area SW-3 appeared to have expanded due to beaver influence and flooded much of the LW-3 and SW-3 area and causing monitoring well LW-3 to be fully submerged. Surface water sample area SW-1 was dry during the April 2021 monitoring event. Groundwater contour maps April 2021 event and the previous March 2016 monitoring event are included as Figures 4A and 4B, respectively. Potentiometric data is included in Table 1 in Appendix 2.

2.2 Groundwater and Surface Water Sampling

The groundwater monitoring event was conducted on select wells on April 20, 21, and 22, 2021. Monitoring wells OW-3, OW-4, OW-6B, LW-6, and CL-08-WT and surface water locations SW-2, and

SW-3 were sampled. Monitoring well LW-2 was unable to be sampled due to the monitoring well sustaining significant damage caused by the existing vegetation. Monitoring well LW-3 was unable to be sampled due to the monitoring well being fully submerged below the surface water. This expanded area of surface water appears to be the result of significant beaver activity that has taken place over the past few years. The change in surface water features caused by the beaver activity also caused the surface water SW-1 sampling location to be dry; therefore, no surface water sample was gathered from this area.

Monitoring wells were purged using a 12 volt, stainless steel monsoon pump and dedicated polyethylene tubing for each well. During the purging process, pH, temperature (°C), conductivity (mS/cm), and turbidity (NTU) readings were monitored using a YSI ProDSS multi-meter to ensure that groundwater samples were representative of subsurface conditions. Following sufficient recharge, groundwater samples were collected via 12 volt, stainless steel monsoon pump and dedicated polyethylene tubing for each well. All samples collected during this monitoring event were sampled to determine Target Compound List / Volatile Organic Compounds (TCL/VOCs) via Environmental Protection Agency (EPA) method 8260B, TCL / Semi-Volatile Organic Compounds (TCL/SVOCs) via EPA method 8270, TCL / Pesticides (TCL/Pesticides) via EPA method 8081, TCL / Polychlorinated Biphenyls (TCL/PCBs) via EPA method 8082, Target Analyte List / Metals (TAL/Metals) via EPA method 6010, Cyanide via EPA method 9014, Chlorides and Sulfates via EPA method 9056, Alkalinity via EPA method 310.2, and Hardness via EPA method 130.2. Immediately after sample collection, the sample bottles were placed in an iced cooler for transportation under standard chain-of-custody protocol to Analytical Environmental Services, Inc. (AES) of Atlanta, Georgia. Decontamination of down-hole equipment consisted of an Alconox™ wash followed by a potable water rinse. Purging data tables for the April 2021 monitoring event are provided in Appendix 3.

3.0 FINDINGS

3.1 Limitations of Assessment

The reported findings are based on the information obtained from the liquid level gauging and the analytical laboratory testing. The investigative procedures have been performed in accordance with generally accepted standards for this type of work. Because the groundwater monitoring wells and surface water locations represent a very small statistical sampling of subsurface conditions, it is possible that conditions at other locations on the subject property will vary from those indicated in this report.

3.2 Ground and Surface Water Analytical Laboratory Results

Laboratory analytical results detected several constituents above laboratory detection limits in the groundwater and surface water samples analyzed; however, all of these detections were below the Georgia EPD Hazardous Site Response Act (HSRA) Media Target Concentrations with the exception of benzene in the groundwater sample collected from monitoring well LW-6 and the field duplicate collected from monitoring well LW-6 at concentrations of 0.0063 milligrams per liter (mg/L) and 0.0066 mg/L, respectively, and lead in the groundwater sample collected from monitoring well CL08-WT at a

concentration of 0.0217 mg/L. A summary of the April 2021 groundwater analytical results is included in Table 2 in Appendix 2. The analytical reports and chain-of-custody records are included in Appendix 4.

3.3 April 2021 Analytical Results vs. Historical Analytical Results

Geo-Hydro compared the April 2021 groundwater analytical to the 2016, 2006, and 1991 groundwater analytical data. The groundwater analytical results from the April 2021 event are similar to the groundwater analytical results from the 2016, 2006, and 1991 monitoring events. Comparisons of the analytical results from the April 2021 monitoring event to the 2016, 2006, and 1991 monitoring events are included int Table 3 in Appendix 2.

4.0 SUMMARY AND CONCLUSIONS

The purpose of the natural attenuation monitoring was to analyze groundwater and surface water at the Former Cedartown Municipal Landfill for certain specific chemical analytes requested by the Georgia Environmental Protection Division (EPD). Laboratory analytical results detected several constituents above laboratory detection limits in the groundwater and surface water samples analyzed; however, all of these detections were below their respective Georgia EPD HSRA Media Target Concentrations with the exception of benzene in the groundwater sample collected from monitoring well LW-6 and the field duplicate collected from monitoring well LW-6 at concentrations of 0.0063 milligrams per liter (mg/L) and 0.0066 mg/L, respectively, and lead in the groundwater sample collected from monitoring well CL08-WT at a concentration of 0.0217 mg/L. These exceedances are consistent with previous analytical results. Lead concentrations were below laboratory detection limits in well OW-6B during the July 2016 monitoring event, and nickel concentrations in well LW-3 could not be confirmed due to the well being too damaged to be sampled. However, these March 2016 exceedances are only slightly over the Georgia EPD HSRA Media Target Concentration of 0.015 mg/L for lead and 0.1 mg/L for nickel. In our opinion, based on the results of this monitoring event, no significant changes have occurred in the groundwater flow or contaminant characteristics at the Former Cedartown Municipal Landfill.

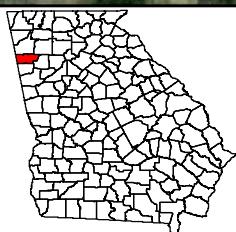
Although there we no significant changes to the groundwater flow or contaminant characteristics at the Former Cedartown Municipal Landfill, changes have occurred due to vegetative growth and significant wildlife activity. Monitoring well LW-2 was unable to be sampled due to the monitoring well sustaining significant damage caused be the vegetation growth. Monitoring well LW-3 was unable to be sampled due to the monitoring well being fully submerged below the surface water. This expanded area of surface water appears to be the result of significant beaver activity that has taken place over the past few years. The change in surface water features caused by the beaver activity also caused the surface water SW-1 sampling location to be dry; therefore, no surface water sample was gathered from this area. Geo-Hydro recommends that monitoring well and surface water conditions be evaluated prior to any additional sampling events.

Appendix 1

Figures



Figure 1. Site Location Map
Former Municipal Landfill Site
Natural Attenuation Monitoring and Reporting Activities
Cedartown, Polk County, Georgia
Geo-Hydro Project Number: 210305.30



Legend
■ Site Location

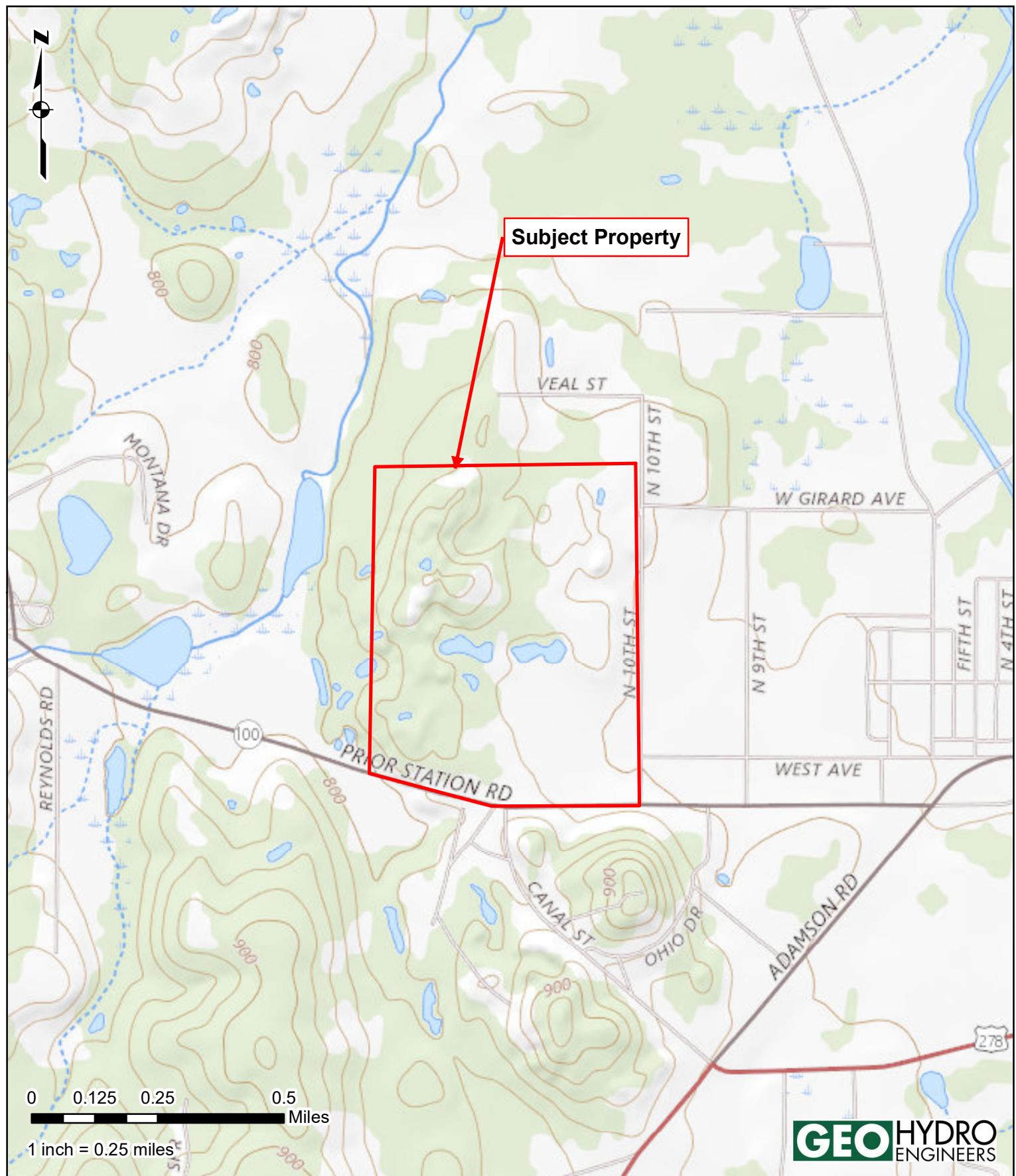
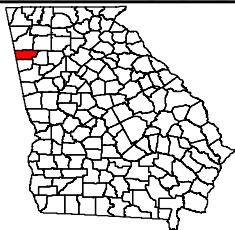


Figure 2. USGS Topographic Map
Former Municipal Landfill Site
Natural Attenuation Monitoring and Reporting Activities
Cedartown, Polk County, Georgia
Geo-Hydro Project Number: 210305.30



Legend
■ Site Location

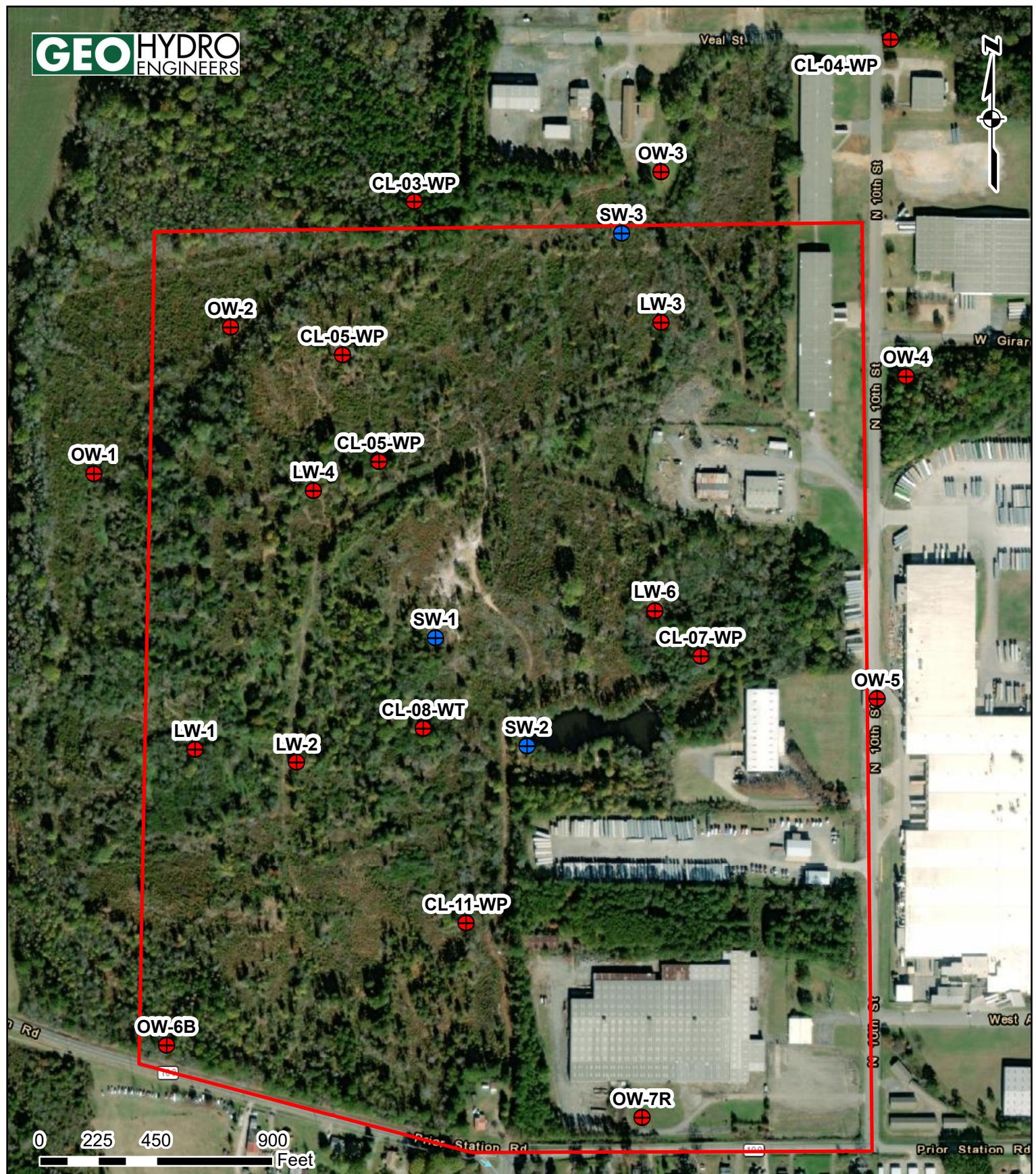


Figure 3. Sample Location Plan

Former Municipal Landfill Site
Natural Attenuation Monitoring and Reporting Activities
Cedartown, Polk County, Georgia
Geo-Hydro Project Number: 210305.30



Legend

Sample Point

● Surface Water

● Well Location

■ Site Location

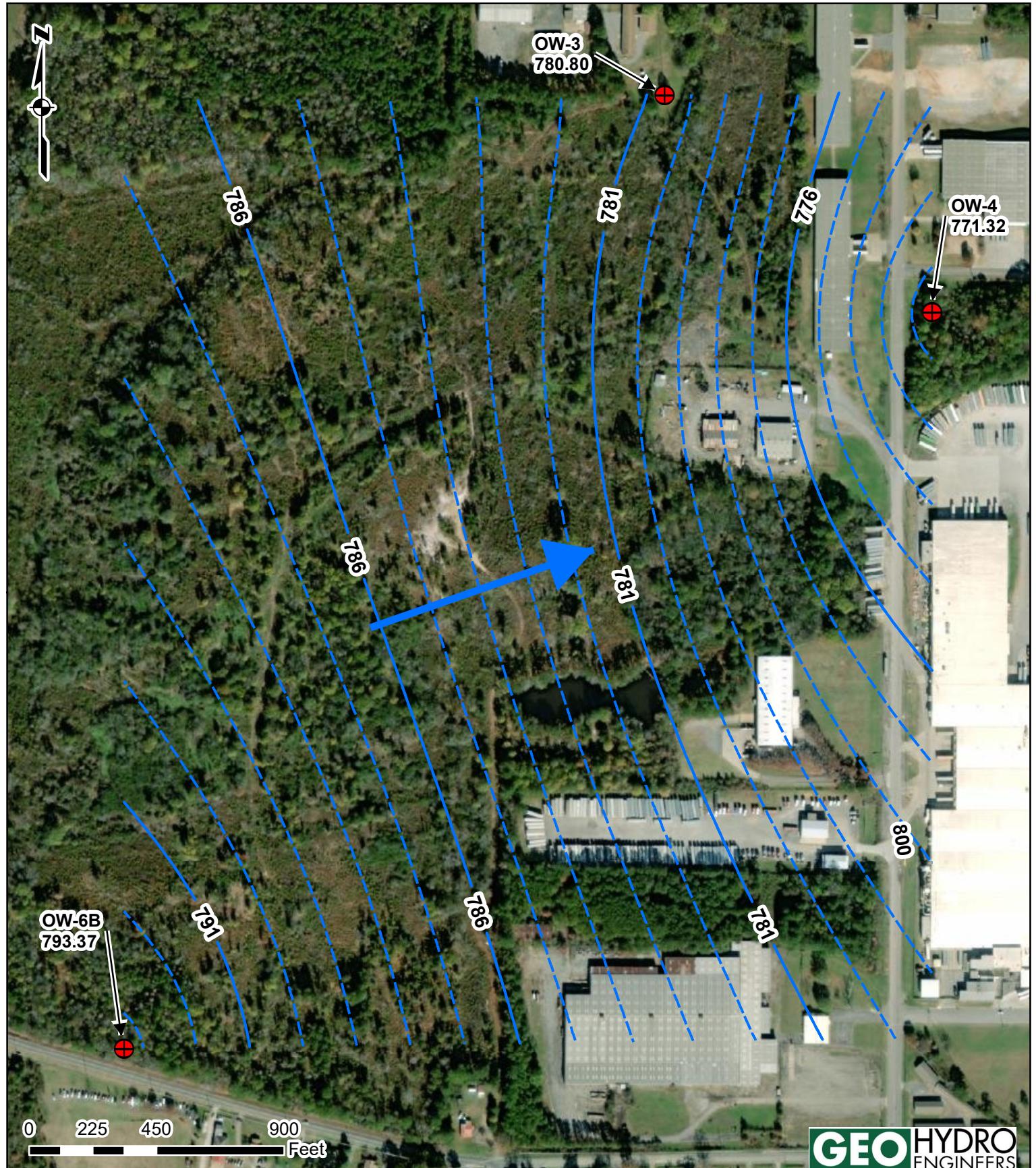
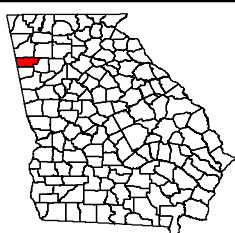


Figure 4A. Groundwater Potentiometric Surface Map - 2021
Former Municipal Landfill Site
Natural Attenuation Monitoring and Reporting Activities
Cedartown, Polk County, Georgia
Geo-Hydro Project Number: 210305.30



Legend
● Sample Point

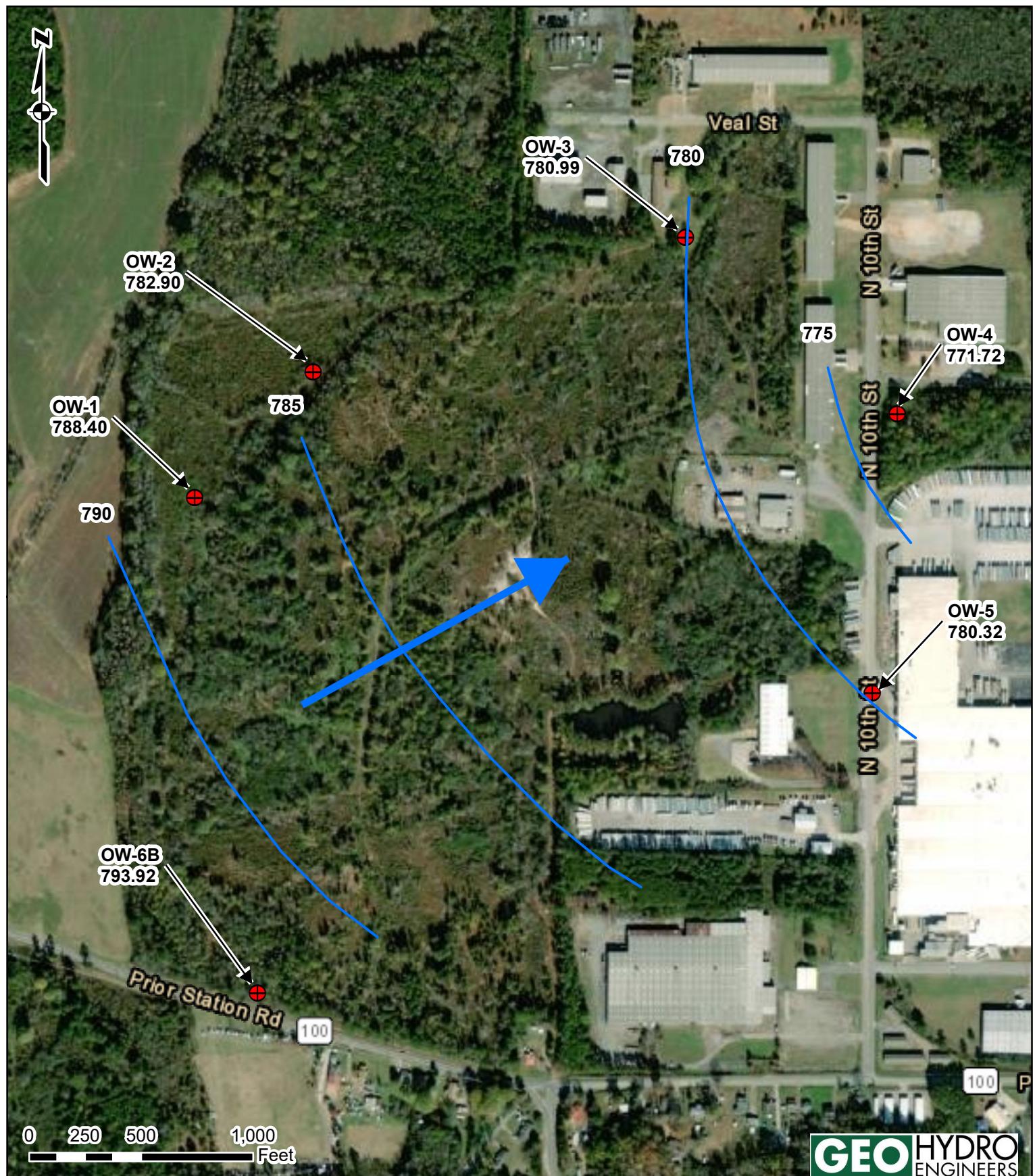
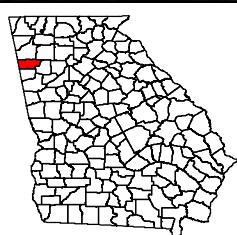


Figure 4B. Groundwater Potentiometric Surface Map - 2016
Former Municipal Landfill Site
Natural Attenuation Monitoring and Reporting Activities
Cedartown, Polk County, Georgia
Geo-Hydro Project Number: 210305.30



Legend
Sample Point

Well Location

Appendix 2

Groundwater Data Tables

Table 1
Potentiometric Groundwater Results
Former Municipal Landfill Site
Natural Attenuation Monitoring

Well Name	Date Gauged	Well Condition	Top Of Casing Elevation	Depth To Water	Depth To Bottom	Elevation Top of Water
OW-1	4/22/2021	N/A	N/A	N/A	N/A	N/A
	3/30/2016	Fair	823.8	35.4	62	788.4
OW-2	4/22/2021	N/A	N/A	N/A	N/A	N/A
	3/30/2016	Fair	827.5	44.6	60	782.9
OW-3	4/22/2021	Fair	803.29	22.49	193.8	780.8
	7/19/2016	Fair	803.29	38.9	193	764.39
	3/25/2016	Fair	803.29	22.3	193	780.99
OW-4	4/20/2021	Fair	801.52	30.2	62.6	771.32
	7/20/2016	Fair	801.52	38.4	62.6	763.12
	3/29/2016	Fair	801.52	29.8	62.6	771.72
OW-5	4/22/2021	N/A	N/A	N/A	N/A	N/A
	3/30/2016	Fair	797.92	17.6	**	780.32
OW-6B	4/22/2021	Fair	805.12	11.75	49.2	793.37
	7/19/2016	Fair	805.12	25.4	49.2	779.72
	3/25/2016	Fair	805.12	11.2	49.2	793.92
OW-7R	4/22/2021	Fair	*	N/A	**	*
	3/30/2016	Fair	*	17.4	**	*
LW-2	4/20/2021	Damaged	851.65	9.83	19.2	841.82
	3/30/2016	Damaged	851.65	9.5	19.2	842.15
LW-3	4/20/2021	Flooded	807	N/A	N/A	N/A
	3/29/2016	Fair	807	1.9	14.9	805.1
LW-6	4/21/2021	Fair	817.44	3.54	18.8	15.26
	3/29/2016	Fair	817.44	1.5	18.8	815.94
CL-04-WP	4/22/2021	N/A	N/A	N/A	N/A	N/A
	3/29/2016	Fair	796.81	31.5	40.7	765.31
CL-05-WP	4/22/2021	N/A	N/A	N/A	N/A	N/A
	3/30/2016	Damaged	853.34	62.5	117	790.84
CL-06-WP	4/22/2021	Damaged	861.02	***	***	***
	3/30/2016	Damaged	861.02	***	***	***
CL-07-WP	4/22/2021	N/A	N/A	N/A	N/A	N/A
	7/20/2016	Damaged	856.21	Dry	34.2	Dry
	3/30/2016	Damaged	856.21	32.4	34.2	823.81
CL-08-WT	4/21/2021	Damaged	836.5	3.62	16	832.88
	3/30/2016	Damaged	836.5	3	16	833.5

Notes:

* = Top of Casing Elevation Unknown

** = Depth to Bottom Unknown

*** = Well Damaged and Water Depth Could not be Gauged

N/A = Not Available (well not gauged)

Table 2
April 2021 Groundwater Analytical Results
Former Municipal Landfill Site
Natural Attenuation Monitoring
Cedartown, Georgia

Parameter	OW-3 (mg/L)	OW-4 (mg/L)	OW-6B (mg/L)	LW-6 (mg/L)	CL08-WT (mg/L)	SW-2 (mg/L) Old SS-5	SW-3 (mg/L) Old SS-1	FD-1 (OW-4) (mg/L)	FD-2 (LW-6) (mg/L)	FD-3 (OW-6B) (mg/L)	GEPD HSRA MTC (mg/L)
VOCs											
1,4 Dichlorobenzene	<RL	<RL	<RL	0.0068	<RL	<RL	<RL	0.0062	<RL	0.075	
Benzene	<RL	<RL	<RL	0.0063	<RL	<RL	<RL	0.0066	<RL	0.005	
Chlorobezene	<RL	<RL	<RL	0.015	0.0052	<RL	<RL	0.015	<RL	0.1	
Isopropylbenzene	<RL	<RL	<RL	<RL	0.016	<RL	<RL	<RL	<RL	0.45	
Total Xylenes	<RL	<RL	<RL	<RL	0.021	<RL	<RL	<RL	<RL	20	
SVOCs											
2- Methylnaphthalene	<RL	<RL	<RL	<RL	0.025	<RL	<RL	<RL	<RL	<RL	N/A
Pesticides											
Pesticides	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	**
PCBs											
PCBs	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	0.005
TAL Metals											
Aluminum	<RL	<RL	<RL	<RL	2.42	<RL	<RL	<RL	<RL	<RL	N/A
Barium	0.145	0.0202	0.0397	0.13	1.31	<RL	0.241	0.0216	0.132	0.0394	2
Calcium	71.4	68.5	37.4	249	106	7.59	35.5	83.3	245	36.4	N/A
Chromium	<RL	<RL	<RL	<RL	0.0106	<RL	<RL	<RL	<RL	<RL	0.1
Copper	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	1.3
Cobalt	<RL	<RL	<RL	<RL	<RL	<RL	0.0307	<RL	<RL	<RL	N/A
Iron	3.78	13.3	6.65	22.7	49	1.47	11.7	24.1	22.8	5.58	N/A
Lead	<RL	<RL	<RL	<RL	0.0217	<RL	<RL	<RL	<RL	<RL	0.015
Magnesium	6.52	43.6	20.5	19.8	22.7	1.12	6.05	44.9	19.9	20.2	N/A
Manganese	3.55	1.02	0.518	1.61	1.19	0.148	5.63	2.26	1.55	0.502	N/A
Mercury	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	0.002
Nickle	<RL	<RL	<RL	<RL	0.0309	<RL	0.0206	<RL	<RL	<RL	0.39
Potassium	1.43	7.2	1.43	22	21.8	1.93	3.61	5.2	22.3	1.27	N/A
Sodium	7.19	168	1.43	23.4	37.5	<RL	4.33	177	23.8	1.42	N/A
Vanadium	<RL	<RL	<RL	<RL	0.0105	<RL	<RL	<RL	<RL	<RL	<RL
Zinc	<RL	<RL	<RL	<RL	0.0713	<RL	<RL	<RL	0.0271	<RL	6
Cyanide											
Cyanide	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	0.2
Ion Scan											
Chloride	4.8	8.1	3.4	9.6	27	1.4	3.1	7.4	9.5	4.4	N/A
Sulfate	29	670	2.9	410	1.5	2.2	3.8	690	420	3.2	N/A
Hardness											
Hardness (CaCO ₃)	205	350	178	703	359	23.6	114	405	694	174	N/A
Alkalinity											
Alkalinity (CaCO ₃)	254	160	199	731	572	28.5	151	184	727	197	N/A

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FD = Field Duplicates (i.e. FD-1 is OW-4)

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Hardness Total in mg/L of Calcium/Magnesium (As CaCO₃)

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Acetone	2021	<RL	<RL	<RL	NS	NS	<RL	<RL	NS	<RL	<RL	14
	2016	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	
	2006	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	1991	<RL	0.016	<RL	0.026	0.013	0.012	0.055	0.1	0.058	NS	
Benzene	2021	<RL	<RL	<RL	NS	NS	0.0063	<RL	NS	<RL	<RL	0.005
	2016	<RL	<RL	<RL	<RL	<RL	0.0092	0.008	<RL	<RL	<RL	
	2006	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	1991	<RL	<RL	<RL	0.008	<RL	0.012	0.032	<RL	<RL	NS	
2-Butanone	2021	<RL	<RL	<RL	NS	NS	<RL	<RL	NS	<RL	<RL	5.6
	2016	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	
	2006	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	1991	<RL	<RL	<RL	<RL	<RL	<RL	<RL	0.006	<RL	NS	
Chloro-benzene	2021	<RL	<RL	<RL	NS	NS	0.015	0.0052	NS	<RL	<RL	0.1
	2016	<RL	<RL	<RL	0.014	<RL	0.017	0.0059	<RL	<RL	<RL	
	2006	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	1991	<RL	<RL	<RL	0.014	<RL	0.012	<RL	<RL	<RL	NS	
1,4-Dichloro benzene	2021	<RL	<RL	<RL	NS	NS	0.0068	<RL	NS	<RL	<RL	0.0075
	2016	<RL	<RL	<RL	<RL	<RL	0.0072	<RL	<RL	<RL	<RL	
	2006	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	1991	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	
Ethylbenzene	2021	<RL	<RL	<RL	NS	NS	<RL	<RL	NS	<RL	<RL	0.7
	2016	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	
	2006	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	1991	<RL	<RL	<RL	0.007	<RL	0.012	0.16	<RL	<RL	NS	
Isopropyl benzene	2021	<RL	<RL	<RL	NS	NS	<RL	0.016	NS	<RL	<RL	0.45
	2016	<RL	<RL	<RL	<RL	<RL	<RL	0.016	<RL	<RL	<RL	
	2006	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	1991	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Toluene	2021	<RL	<RL	<RL	NS	NS	<RL	<RL	NS	<RL	<RL	1
	2016	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	
	2006	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	1991	<RL	<RL	<RL	0.006	<RL	<RL	<RL	<RL	<RL	NS	
Total Xylenes	2021	<RL	<RL	<RL	NS	NS	<RL	0.021	NS	<RL	<RL	20
	2016	<RL	<RL	<RL	<RL	<RL	<RL	0.058	<RL	<RL	<RL	
	2006	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	1991	<RL	<RL	<RL	0.07	<RL	0.017	0.68	<RL	<RL	NS	
Acenaphthene	2021	<RL	<RL	<RL	NS	NS	<RL	<RL	NS	<RL	<RL	0.54
	2016	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	
	2006	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	1991	<RL	<RL	0.053	<RL	<RL	<RL	0.006	<RL	<RL	NS	
Acena phthalene	2021	<RL	<RL	<RL	NS	NS	<RL	<RL	NS	<RL	<RL	N/A
	2016	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	
	2006	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	1991	<RL	<RL	0.008	<RL	<RL	<RL	<RL	<RL	<RL	NS	

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Anthracene	2021	<RL	<RL	<RL	NS	NS	<RL	<RL	NS	<RL	<RL	N/A	
	2016	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL		
	2006	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS		
	1991	<RL	<RL	0.009	<RL	<RL	<RL	<RL	<RL	<RL	NS		
bis(2-Ethylhexyl) phthalate	2021	<RL	<RL	<RL	NS	NS	<RL	<RL	NS	<RL	<RL	0.006	
	2016	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL		
	2006	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS		
	1991	<RL	<RL	<RL	<RL	0.015	<RL	0.003	<RL	<RL	NS		
Dibenzofuran	2021	<RL	<RL	<RL	NS	NS	<RL	<RL	NS	<RL	<RL	N/A	
	2016	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL		
	2006	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS		
	1991	<RL	<RL	0.002	<RL	<RL	<RL	0.003	<RL	<RL	NS		
Di-n-butylphthalate	2021	<RL	<RL	<RL	NS	NS	<RL	<RL	NS	<RL	<RL	0.9	
	2016	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL		
	2006	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS		
	1991	<RL	<RL	<RL	<RL	<RL	<RL	0.003	<RL	<RL	NS		
Fluorene	2021	<RL	<RL	<RL	NS	NS	<RL	<RL	NS	<RL	<RL	0.29	
	2016	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL		
	2006	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS		
	1991	0.002	<RL	0.025	<RL	<RL	<RL	0.004	<RL	<RL	NS		
Naphthalene	2021	<RL	<RL	<RL	NS	NS	<RL	<RL	NS	<RL	<RL	0.0061	
	2016	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL		
	2006	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS		
	1991	<RL	<RL	0.29	0.015	<RL	0.046	0.125	<RL	<RL	NS		
N-nitroso diphenylamine	2021	<RL	<RL	<RL	NS	NS	<RL	<RL	NS	<RL	<RL	N/A	
	2016	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL		
	2006	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS		
	1991	<RL	<RL	<RL	<RL	<RL	<RL	0.005	<RL	<RL	NS		
Phenanthrene	2021	<RL	<RL	<RL	NS	NS	<RL	<RL	NS	<RL	<RL	N/A	
	2016	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL		
	2006	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS		
	1991	0.002	<RL	0.033	<RL	<RL	<RL	0.005	<RL	<RL	NS		
Benzoic acid	2021	<RL	<RL	<RL	NS	NS	<RL	<RL	NS	<RL	<RL	N/A	
	2016	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL		
	2006	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS		
	1991	<RL	<RL	<RL	0.031	<RL	<RL	<RL	<RL	<RL	NS		
2,4-Dimethyl phenol	2021	<RL	<RL	<RL	NS	NS	<RL	<RL	NS	<RL	<RL	0.36	
	2016	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL		
	2006	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS		
	1991	<RL	<RL	<RL	<RL	<RL	<RL	0.006	<RL	<RL	NS		
2-Methyl naphthalene	2021	<RL	<RL	<RL	NS	NS	<RL	<RL	0.025	NS	<RL	<RL	N/A
	2016	<RL	<RL	<RL	<RL	<RL	<RL	<RL	0.029	<RL	<RL		
	2006	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS		
	1991	<RL	<RL	0.12	<RL	<RL	<RL	0.036	<RL	<RL	NS		

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4-Methylphenol	2021	<RL	<RL	<RL	NS	NS	<RL	<RL	NS	<RL	<RL	N/A
	2016	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	
	2006	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	1991	<RL	<RL	<RL	0.027	<RL	<RL	<RL	<RL	<RL	<RL	
PCBs	2021	<RL	<RL	<RL	NS	NS	<RL	<RL	NS	<RL	<RL	0.005
	2016	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	
	2006	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	1991	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	NS	
Aluminum	2021	<RL	<RL	<RL	NS	NS	<RL	2.42	NS	<RL	<RL	N/A
	Jul-16	1.12	0.389	0.886	NS	NS	NS	NS	NS	NS	NS	
	Mar-16	0.501	0.202	4.48	<RL	<RL	<RL	<RL	0.329	<RL	<RL	
	2006	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	1991	0.45	0.97	0.93	94	1.3	240	30	19	<RL	NS	
Antimony	2021	<RL	<RL	<RL	NS	NS	<RL	<RL	NS	<RL	<RL	0.006
	Jul-16	<RL	<RL	<RL	NS	NS	NS	NS	NS	NS	NS	
	Mar-16	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	
	2006	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	1991	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	NS	
Arsenic	2021	<RL	<RL	<RL	NS	NS	<RL	<RL	NS	<RL	<RL	0.01
	Jul-16	<RL	<RL	<RL	NS	NS	NS	NS	NS	NS	NS	
	Mar-16	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	
	2006	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	1991	<RL	<RL	<RL	0.012	<RL	0.019	0.008	0.009	<RL	NS	
Beryllium	2021	<RL	<RL	<RL	NS	NS	<RL	<RL	NS	<RL	<RL	0.004
	Jul-16	<RL	<RL	<RL	NS	NS	NS	NS	NS	NS	NS	
	Mar-16	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	
	2006	<RL	<RL	<RL	NS	NS	NS	NS	NS	NS	NS	
	1991	<RL	<RL	<RL	0.009	<RL	0.023	<RL	<RL	<RL	<RL	
Barium	2021	0.145	0.0202	0.0397	NS	NS	0.13	1.31	NS	<RL	0.241	2
	Jul-16	0.148	0.0214	0.067	NS	NS	NS	NS	NS	NS	NS	
	Mar-16	0.151	0.0258	0.0744	1.04	0.287	0.146	1.22	0.0371	<RL	0.0372	
	2006	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	1991	0.38	0.085	0.01	3.6	0.082	3.5	1.6	1.2	<RL	NS	
Cadmium	2021	<RL	<RL	<RL	NS	NS	<RL	<RL	NS	<RL	<RL	0.005
	Jul-16	<RL	<RL	<RL	NS	NS	NS	NS	NS	NS	NS	
	Mar-16	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	
	2006	<RL	<RL	<RL	NS	NS	NS	NS	NS	NS	NS	
	1991	<RL	<RL	<RL	0.005	<RL	0.043	<RL	<RL	<RL	<RL	
Calcium	2021	71.4	68.5	37.4	NS	NS	249	106	NS	7.59	35.5	N/A
	Jul-16	93.7	133	36.7	NS	NS	NS	NS	NS	NS	NS	
	Mar-16	95	167	20.5	103	10	169	113	16.8	9.36	43.5	
	2006	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	1991	460	160	11	120	8.2	90	130	140	5.4	NS	

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Chromium	2021	<RL	<RL	<RL	NS	NS	<RL	0.0106	NS	<RL	<RL	0.1
	Jul-16	<RL	<RL	<RL	NS	NS	NS	NS	NS	NS	NS	
	Mar-16	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	
	2006	<RL	<RL	<RL	NS	NS	NS	NS	NS	NS	NS	
	1991	<RL	<RL	<RL	0.19	0.015	0.7	0.075	0.062	<RL	NS	
Cobalt	2021	<RL	<RL	<RL	NS	NS	<RL	<RL	NS	<RL	0.0307	N/A
	Jul-16	0.0258	<RL	<RL	NS	NS	NS	NS	NS	NS	NS	
	Mar-16	0.0285	0.0473	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	
	2006	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	1991	<RL	<RL	<RL	0.31	<RL	0.33	<RL	0.05	<RL	NS	
Copper	2021	<RL	<RL	<RL	NS	NS	<RL	<RL	NS	<RL	<RL	1.3
	Jul-16	<RL	<RL	<RL	NS	NS	NS	NS	NS	NS	NS	
	Mar-16	<RL	<RL	<RL	<RL	0.0131	<RL	<RL	<RL	<RL	0.0212	
	2006	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	1991	<RL	0.019	<RL	0.33	0.012	1.8	0.056	0.049	<RL	NS	
Iron	2021	3.78	13.3	6.65	NS	NS	22.7	49	NS	1.47	11.7	N/A
	Jul-16	3.96	1.98	6.65	NS	NS	NS	NS	NS	NS	NS	
	Mar-16	5.09	16.8	10.9	35.6	6.81	26.1	37.3	34.1	1.74	1.21	
	2006	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	1991	3.9	5.4	8.1	350	4.9	760	130	190	0.51	NS	
Lead	2021	<RL	<RL	<RL	NS	NS	<RL	0.0217	NS	<RL	<RL	0.015
	Jul-16	<RL	<RL	<RL	NS	NS	NS	NS	NS	NS	NS	
	Mar-16	<RL	<RL	0.0274	<RL	<RL	<RL	<RL	<RL	<RL	<RL	
	2006	0.000805	<RL	<RL	NS	NS	NS	NS	NS	NS	NS	
	1991	<RL	0.003	<RL	0.11	<RL	1.6	0.092	0.02	<RL	NS	
Magnesium	2021	6.52	43.6	20.5	NS	NS	19.8	22.7	NS	1.12	6.05	N/A
	Jul-16	4.38	48.6	15	NS	NS	NS	NS	NS	NS	NS	
	Mar-16	6.19	51.5	8.94	12.9	1.74	17.9	21.4	1.94	1.09	3.01	
	2006	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	1991	<RL	58	<RL	30	<RL	28	48	55	<RL	NS	
Manganese	2021	3.55	1.02	0.518	NS	NS	1.61	1.19	NS	0.148	5.63	N/A
	Jul-16	2.96	4.57	0.811	NS	NS	NS	NS	NS	NS	NS	
	Mar-16	3.97	7.81	0.896	6.18	0.373	0.441	0.894	2.22	0.0819	0.126	
	2006	1.43	0.384	0.967	NS	NS	NS	NS	NS	NS	NS	
	1991	0.07	1.2	0.096	10	1.2	3.9	2.6	4.9	0.12	NS	
Mercury	2021	<RL	<RL	<RL	NS	NS	<RL	<RL	NS	<RL	<RL	0.002
	Jul-16	<RL	<RL	<RL	NS	NS	NS	NS	NS	NS	NS	
	Mar-16	0.0004	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	
	2006	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	1991	<RL	<RL	<RL	0.0014	<RL	0.0067	<RL	<RL	<RL	<RL	
Nickel	2021	<RL	<RL	<RL	NS	NS	<RL	0.0309	NS	<RL	0.0206	0.39
	Jul-16	0.022	<RL	<RL	NS	NS	NS	NS	NS	NS	NS	
	Mar-16	<RL	<RL	<RL	<RL	0.135	<RL	<RL	<RL	<RL	<RL	
	2006	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	1991	<RL	0.045	<RL	0.8	<RL	0.68	0.085	0.055	<RL	NS	

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Potassium	2021	1.43	7.2	1.43	NS	NS	22	21.8	NS	1.93	3.61	N/A
	Jul-16	1.14	4.92	0.981	NS	NS	NS	NS	NS	NS	NS	
	Mar-16	1.35	5.43	1.3	12.3	8.24	30.3	23.9	1.5	1.58	3.93	
	2006	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	1991	75	18	13	59	<RL	100	83	92	<RL	NS	
Sodium	2021	7.19	168	1.43	NS	NS	23.4	37.5	NS	<RL	4.33	N/A
	Jul-16	7.22	189	1.53	NS	NS	NS	NS	NS	NS	NS	
	Mar-16	8.15	175	1.22	15.2	106	35.9	39.7	3.25	<RL	3.97	
	2006	3.3	187	1.73	NS	NS	NS	NS	NS	NS	NS	
	1991	17	290	5.4	170	3.2	240	220	290	<RL	NS	
Vanadium	2021	<RL	<RL	<RL	NS	NS	<RL	0.0105	NS	<RL	<RL	N/A
	Jul-16	<RL	<RL	<RL	NS	NS	NS	NS	NS	NS	NS	
	Mar-16	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	
	2006	<RL	<RL	<RL	NS	NS	NS	NS	NS	NS	NS	
	1991	<RL	<RL	<RL	0.23	<RL	0.54	0.11	0.11	<RL	NS	
Zinc	2021	<RL	<RL	<RL	NS	NS	<RL	0.0713	NS	<RL	<RL	6
	Jul-16	<RL	<RL	<RL	NS	NS	NS	NS	NS	NS	NS	
	Mar-16	<RL	<RL	0.062	<RL	0.126	<RL	<RL	<RL	<RL	0.118	
	2006	0.0287	<RL	<RL	NS	NS	NS	NS	NS	NS	NS	
	1991	<RL	<RL	0.066	2.1	0.16	0.012	0.73	0.54	0.033	NS	
Cyanide	2021	<RL	<RL	<RL	NS	NS	<RL	<RL	NS	<RL	<RL	0.2
	2016	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	
	2006	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	1991	<RL	<RL	<RL	0.006	<RL	0.02	<RL	<RL	<RL	NS	
Chloride	2021	4.8	8.1	3.4	NS	NS	9.6	27	NS	1.4	1.4	N/A
	2016	5.2	<RL	3	15	22	19	30	4.4	1.2	2.3	
	2006	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	1991	7	11	3	200	29	190	300	NS	NS	NS	
Sulfate	2021	29	670	2.9	NS	NS	410	1.5	NS	2.2	3.8	N/A
	2016	27	890	<RL	17	13	72	<RL	4.2	<RL	51	
	2006	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	1991	ND	94	12	8	9	46	18	NS	NS	NS	
Hardness	2021	205	350	178	NS	NS	703	359	NS	23.5	114	N/A
	2016	253	546	73.6	289	29.4	468	335	46.7	26.1	116	
	2006	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	1991	2000	770	20	380	26	280	600	NS	NS	NS	
Alkalinity	2021	254	160	199	NS	NS	731	572	NS	28.5	151	N/A
	2016	230	240	83	400	750	770	540	70	110	170	
	2006	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	1991	860	980	72	700	40	980	1100	NS	NS	NS	

Notes:

mg/L = milligrams per liter

GEPD HSRA MTC = Georgia EPD Hazardous Site Response Act Media Target Concentrations

<RL = Below laboratory reporting limits

N/A = Not applicable

NS = Not sampleable

* = Total Xylenes Media Target Concentration

** = multiple contaminants with separate Media Target Concentrations

Hardness Total in mg/L of Calcium/Magnesium (As CaCO₃)

Alkalinity Total in mg/L CaCO₃

Samples were collected on April 20, 21, and 22, 2021

Appendix 3

Groundwater Purge Data

April 2021 Well Purgung Data

OW-3					
Time	pH	Conductivity (ms/cm)	Turbidity (NTU)	Temperature (°C)	Amount Purged (gal)
1805	5.26	0.0057	84.9	15.4	15
1910	5.48	0.122	62.5	15.3	18
1814	6.46	0.391	1.3	15.4	21
1819	6.54	0.401	5.4	15.4	24
1824	6.60	0.411	2.9	15.4	27
1830	6.65	0.417	9.8	15.4	30

Purge Start = 1749
 Sample Time = 1826
 Depth to Water = 22.49
 Bottom = 193.00

Casing = 2"
 Total Purged = 30 gal
 Date = 4/22/21

OW-4					
Time	pH	Conductivity (ms/cm)	Turbidity (NTU)	Temperature (°C)	Amount Purged (gal)
1530	7.44	1.252	109	16.9	4
1535	7.46	1.216	3.9	17.1	5
1539	7.53	1.165	1.2	17.2	6
1544	7.40	1.166	1.2	17.1	7
1605	7.49	1.234	2.1	17.1	8
1630	7.44	1.416	0.1	17.2	10

Purge Start = 1500
 Sample Time = 1606
 Depth to Water = 30.20
 Bottom = 62.0

Casing = 2"
 Total Purged = 10 gal
 Date = 4/20/21

OW-6B					
Time	pH	Conductivity (ms/cm)	Turbidity (NTU)	Temperature (°C)	Amount Purged (gal)
1607	6.99	0.295	72.8	16.2	10
1611	6.99	0.296	65.2	16.2	11
1614	6.94	0.295	61.2	16.2	12
1620	6.49	0.295	49.0	16.3	13
1630	6.98	0.294	45.6	16.3	15
1640	6.97	0.293	42.8	16.3	17

Purge Start = 1529
 Sample Time = 1615
 Depth to Water = 11.75
 Bottom = 49.20

Casing = 8"
 Total Purged = 17 gal
 Date = 4/22/21

April 2021 Well Purgng Data

LW-6					
Time	pH	Conductivity (ms/cm)	Turbidity (NTU)	Temperature (°C)	Amount Purged (gal)
1642	6.91	0.295	7.8	14.2	5.0
1644	6.91	0.296	6.9	14.2	5.5
1645	6.91	0.295	7.4	14.2	6.0
1647	6.91	0.295	9.3	14.2	6.5
1648	6.91	0.294	10	14.2	7.0
1700	6.91	0.293	2.1	14.1	9.0

Purge Start = 1633

Casing = 2"

Sample Time = 1700

Total Purged = 9 gal

Depth to Water = 3.54

Date = 4/21/21

Bottom = 18.80

CL-08-WT					
Time	pH	Conductivity (ms/cm)	Turbidity (NTU)	Temperature (°C)	Amount Purged (gal)
1840	6.43	0.897	798.2	14.0	2.0
1844	6.43	0.912	480.2	14.2	2.5
1849	6.42	0.902	301.7	14.0	3.0
1900	6.40	0.896	220.6	14.1	3.2
1905	6.41	0.873	447.0	14.2	3.5
1908	6.42	0.89	430.0	14.3	4.0

Purge Start = 1825

Casing = 2"

Sample Time = 1900

Total Purged = 4.0 gal

Depth to Water = 3.62

Date = 4/21/21

Bottom = 16.00

Appendix 4

Groundwater Analytical Data



ANALYTICAL ENVIRONMENTAL SERVICES, INC.

May 03, 2021

Jarrett Baggett
Geo-Hydro Engineers, Inc.
1000 Cobb Place Blvd.
Kennesaw GA 30144

RE: Cedartown Formal Municipal landfill Monitoring

Dear Jarrett Baggett: Order No: 2104Q56

Analytical Environmental Services, Inc. received 11 samples on 4/23/2021 9:44:00 AM for the analyses presented in following report.

"No problems were encountered during the analyses except as noted in the Case Narrative or by qualifiers in the report or QC Summary. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits.

AES's accreditations are as follows:

-NELAP/State of Florida Laboratory ID E87582 for analysis of Non-Potable Water, Solid & Chemical Materials, Air & Emissions Volatile Organics, and Drinking Water Microbiology & Metals, effective 07/01/20-06/30/21.

State of Georgia, Department of Natural Resources ID #800 for analysis of Drinking Water Metals, effective through 06/30/21 and Total Coliforms/ E. coli, effective 04/20/20-04/24/23.

-AIHA-LAP, LLC Laboratory ID: 100671 for Industrial Hygiene samples (Metals and PCM Asbestos), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) Direct Examination, effective until 11/01/21.

These results relate only to the items tested as received. This report may only be reproduced in full.

If you have any questions regarding these test results, please feel free to call.

Sincerely,

Jessica Shilling
Project Manager

COMPANY: <i>Geo-Hydro Engineers, Inc.</i>		ADDRESS: <i>1000 Cobb Place Blvd Suite 290 Kennesaw GA 30144</i>		ANALYSIS REQUESTED		<p>Visit our website www.aesatlanta.com for downloadable COCs and to log in to your AESAccess account.</p>	Number of Containers								
PHONE: <i>770-426-7100</i>		EMAIL: <i>SSantoso@geohydro.com</i>													
SAMPLED BY: <i>SM SANTOSO & IAN BOULET</i>		SIGNATURE: <i>[Signature]</i>		TCL 82003	TCL 8270	TCL Pesticides 8081	TCL Metals 6010								
#	SAMPLE ID	SAMPLER:		GRAB	COMPOSITE	MATRIX (see codes)	PRESERVATION (see codes)				REMARKS				
		DATE	TIME												
1	CL-08-WP	4/21/21	1400	x		GW	x	x	x	x	x	x	x	x	9
2	LW-6	4/21/21	1700	x		GW	x	x	x	x	x	x	x	x	9
3	OW-3	4/22/21	1826	x		GW	x	x	x	x	x	x	x	x	9
4	OW-4	4/20/21	1606	x		GW	x	x	x	x	x	x	x	x	9
5	OW-6B	4/22/21	1615	x		GW	x	x	x	x	x	x	x	x	9
6	SW-2	4/21/21	1520	x		GW	x	x	x	x	x	x	x	x	9
7	SW-3	4/20/21	1245	x		GW	x	x	x	x	x	x	x	x	9
8	FD-1	4/20/21	—	x		GW	x	x	x	x	x	x	x	x	9
9	FD-2	4/21/21	—	x		GW	x	x	x	x	x	x	x	x	9
10	FD-3	4/22/21	—	x		GW	x	x	x	x	x	x	x	x	9
11	<i>Top Blank</i>														2
12															
13															
14															
RELINQUISHED BY:		DATE/TIME:	RECEIVED BY:	DATE/TIME:	PROJECT INFORMATION						RECEIPT				
<i>SAMSANTOSO</i>		4/23/21 0944	<i>Yoder Maggard</i>	4/23/21 9:24 AM	PROJECT NAME: <i>Cedartown Formal Municipal Landfill Monitoring</i>						Total # of Containers	<i>92</i>			
					PROJECT #: <i>210305.30</i>						Turnaround Time (TAT) Request				
					SITE ADDRESS: <i>620 Tenth St Cedartown GA</i>						<input checked="" type="checkbox"/> Standard <input type="checkbox"/> 2 Business Day Rush <input type="checkbox"/> Next Business Day Rush <input type="checkbox"/> Same-Day Rush (auth req.) <input type="checkbox"/> Other _____				
					SEND REPORT TO: <i>SSANTOSO@geohydro.com & Jbaggett@geohydro.com</i>										
					INVOICE TO (IF DIFFERENT FROM ABOVE):										
					QUOTE #: _____ PO#: _____						REGULATORY PROGRAM (if any): <i>I O II O III O IV O</i>				
Submission of samples to the laboratory constitutes acceptance of AES's Terms & Conditions. Client assumes sole responsibility for damage or loss of samples before we accept them. Samples received after 3PM or on Saturday are considered as received the following business day. If no TAT is marked on COC, AES will proceed with standard TAT. Samples are disposed of 30 days after completion of report unless other arrangements are made.															

Matrix Codes: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water ST=Stormwater WW = Waste Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify)

4.30.20_COC

Preservative Codes: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original; Yellow Copy - Client
Page 2 of 9

Client: Geo-Hydro Engineers, Inc.
Project: Cedartown Formal Municipal landfill Monitoring
Lab ID: 2104Q56

Case Narrative

Sample Receiving Nonconformance:

For sample SW-3, 1 of the 2 VOA vials was received broken. Laboratory proceeded with the analysis on the remaining vial.

Sample information on the Chain of Custody (COC) did not match that on the sample bottle labels for sample 2104Q56-001. The sample ID was listed as "CL-08-WT" on the container labels but as "CL-08-WP" on the COC. Sample was logged in using the information on the COC.

Pesticide Analysis by Method 8081:

Due to sample matrix, samples 2104Q56-001B, 002B and 009B required dilution during preparation and /or analysis resulting in elevated reporting limits.

PCB Analysis by Method 8082:

Due to sample matrix, samples 2104Q56-001B, 002B and 009B required dilution during preparation and /or analysis resulting in elevated reporting limits.

Client:	Geo-Hydro Engineers, Inc.	Client Sample ID:	CL-08-WP
Project Name:	Cedartown Formal Municipal landfill Monitoring	Collection Date:	4/21/2021 7:00:00 PM
Lab ID:	2104Q56-001	Matrix:	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL-SEMOVOLATILE ORGANICS SW8270E		(SW3510C)						
1,1'-Biphenyl	BRL	10		ug/L	314156	1	04/28/2021 13:13	YH
2,4,5-Trichlorophenol	BRL	25		ug/L	314156	1	04/28/2021 13:13	YH
2,4,6-Trichlorophenol	BRL	10		ug/L	314156	1	04/28/2021 13:13	YH
2,4-Dichlorophenol	BRL	10		ug/L	314156	1	04/28/2021 13:13	YH
2,4-Dimethylphenol	BRL	10		ug/L	314156	1	04/28/2021 13:13	YH
2,4-Dinitrophenol	BRL	25		ug/L	314156	1	04/28/2021 13:13	YH
2,4-Dinitrotoluene	BRL	10		ug/L	314156	1	04/28/2021 13:13	YH
2,6-Dinitrotoluene	BRL	10		ug/L	314156	1	04/28/2021 13:13	YH
2-Chloronaphthalene	BRL	10		ug/L	314156	1	04/28/2021 13:13	YH
2-Chlorophenol	BRL	10		ug/L	314156	1	04/28/2021 13:13	YH
2-Methylnaphthalene		25	10	ug/L	314156	1	04/28/2021 13:13	YH
2-Methylphenol	BRL	10		ug/L	314156	1	04/28/2021 13:13	YH
2-Nitroaniline	BRL	25		ug/L	314156	1	04/28/2021 13:13	YH
2-Nitrophenol	BRL	10		ug/L	314156	1	04/28/2021 13:13	YH
3,3'-Dichlorobenzidine	BRL	10		ug/L	314156	1	04/28/2021 13:13	YH
3-Nitroaniline	BRL	25		ug/L	314156	1	04/28/2021 13:13	YH
4,6-Dinitro-2-methylphenol	BRL	25		ug/L	314156	1	04/28/2021 13:13	YH
4-Bromophenyl phenyl ether	BRL	10		ug/L	314156	1	04/28/2021 13:13	YH
4-Chloro-3-methylphenol	BRL	10		ug/L	314156	1	04/28/2021 13:13	YH
4-Chloroaniline	BRL	10		ug/L	314156	1	04/28/2021 13:13	YH
4-Chlorophenyl phenyl ether	BRL	10		ug/L	314156	1	04/28/2021 13:13	YH
4-Methylphenol	BRL	10		ug/L	314156	1	04/28/2021 13:13	YH
4-Nitroaniline	BRL	25		ug/L	314156	1	04/28/2021 13:13	YH
4-Nitrophenol	BRL	25		ug/L	314156	1	04/28/2021 13:13	YH
Acenaphthene	BRL	10		ug/L	314156	1	04/28/2021 13:13	YH
Acenaphthylene	BRL	10		ug/L	314156	1	04/28/2021 13:13	YH
Acetophenone	BRL	10		ug/L	314156	1	04/28/2021 13:13	YH
Anthracene	BRL	10		ug/L	314156	1	04/28/2021 13:13	YH
Atrazine	BRL	10		ug/L	314156	1	04/28/2021 13:13	YH
Benz(a)anthracene	BRL	10		ug/L	314156	1	04/28/2021 13:13	YH
Benzaldehyde	BRL	10		ug/L	314156	1	04/28/2021 13:13	YH
Benzo(a)pyrene	BRL	10		ug/L	314156	1	04/28/2021 13:13	YH
Benzo(b)fluoranthene	BRL	10		ug/L	314156	1	04/28/2021 13:13	YH
Benzo(g,h,i)perylene	BRL	10		ug/L	314156	1	04/28/2021 13:13	YH
Benzo(k)fluoranthene	BRL	10		ug/L	314156	1	04/28/2021 13:13	YH
Bis(2-chloroethoxy)methane	BRL	10		ug/L	314156	1	04/28/2021 13:13	YH
Bis(2-chloroethyl)ether	BRL	10		ug/L	314156	1	04/28/2021 13:13	YH
Bis(2-chloroisopropyl)ether	BRL	10		ug/L	314156	1	04/28/2021 13:13	YH
Bis(2-ethylhexyl)phthalate	BRL	10		ug/L	314156	1	04/28/2021 13:13	YH
Butyl benzyl phthalate	BRL	10		ug/L	314156	1	04/28/2021 13:13	YH
Caprolactam	BRL	10		ug/L	314156	1	04/28/2021 13:13	YH
Carbazole	BRL	10		ug/L	314156	1	04/28/2021 13:13	YH
Chrysene	BRL	10		ug/L	314156	1	04/28/2021 13:13	YH
Di-n-butyl phthalate	BRL	10		ug/L	314156	1	04/28/2021 13:13	YH
Di-n-octyl phthalate	BRL	10		ug/L	314156	1	04/28/2021 13:13	YH

Qualifiers: * Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

> Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative

F Analyzed in the lab which is a deviation from the method

< Less than Result value

J Estimated value detected below Reporting Limit

Client: Geo-Hydro Engineers, Inc.	Client Sample ID: CL-08-WP
Project Name: Cedartown Formal Municipal landfill Monitoring	Collection Date: 4/21/2021 7:00:00 PM
Lab ID: 2104Q56-001	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL-SEMOVOLATILE ORGANICS SW8270E		(SW3510C)						
Dibenz(a,h)anthracene	BRL	10		ug/L	314156	1	04/28/2021 13:13	YH
Dibenzofuran	BRL	10		ug/L	314156	1	04/28/2021 13:13	YH
Diethyl phthalate	BRL	10		ug/L	314156	1	04/28/2021 13:13	YH
Dimethyl phthalate	BRL	10		ug/L	314156	1	04/28/2021 13:13	YH
Fluoranthene	BRL	10		ug/L	314156	1	04/28/2021 13:13	YH
Fluorene	BRL	10		ug/L	314156	1	04/28/2021 13:13	YH
Hexachlorobenzene	BRL	10		ug/L	314156	1	04/28/2021 13:13	YH
Hexachlorobutadiene	BRL	10		ug/L	314156	1	04/28/2021 13:13	YH
Hexachlorocyclopentadiene	BRL	10		ug/L	314156	1	04/28/2021 13:13	YH
Hexachloroethane	BRL	10		ug/L	314156	1	04/28/2021 13:13	YH
Indeno(1,2,3-cd)pyrene	BRL	10		ug/L	314156	1	04/28/2021 13:13	YH
Isophorone	BRL	10		ug/L	314156	1	04/28/2021 13:13	YH
N-Nitrosodi-n-propylamine	BRL	10		ug/L	314156	1	04/28/2021 13:13	YH
N-Nitrosodiphenylamine	BRL	10		ug/L	314156	1	04/28/2021 13:13	YH
Naphthalene	BRL	10		ug/L	314156	1	04/28/2021 13:13	YH
Nitrobenzene	BRL	10		ug/L	314156	1	04/28/2021 13:13	YH
Pentachlorophenol	BRL	25		ug/L	314156	1	04/28/2021 13:13	YH
Phenanthrene	BRL	10		ug/L	314156	1	04/28/2021 13:13	YH
Phenol	BRL	10		ug/L	314156	1	04/28/2021 13:13	YH
Pyrene	BRL	10		ug/L	314156	1	04/28/2021 13:13	YH
Surr: 2,4,6-Tribromophenol	53	47-127		%REC	314156	1	04/28/2021 13:13	YH
Surr: 2-Fluorobiphenyl	91.2	47.4-119		%REC	314156	1	04/28/2021 13:13	YH
Surr: 2-Fluorophenol	14.4	26.2-120	S	%REC	314156	1	04/28/2021 13:13	YH
Surr: 4-Terphenyl-d14	92.1	45-133		%REC	314156	1	04/28/2021 13:13	YH
Surr: Nitrobenzene-d5	75	41.9-121		%REC	314156	1	04/28/2021 13:13	YH
Surr: Phenol-d5	0	17.8-120	S	%REC	314156	1	04/28/2021 13:13	YH
TCL VOLATILE ORGANICS SW8260D		(SW5030B)						
1,1,1-Trichloroethane	BRL	5.0		ug/L	314284	1	04/27/2021 03:39	JT
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	314284	1	04/27/2021 03:39	JT
1,1,2-Trichloroethane	BRL	5.0		ug/L	314284	1	04/27/2021 03:39	JT
1,1-Dichloroethane	BRL	5.0		ug/L	314284	1	04/27/2021 03:39	JT
1,1-Dichloroethene	BRL	5.0		ug/L	314284	1	04/27/2021 03:39	JT
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	314284	1	04/27/2021 03:39	JT
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	314284	1	04/27/2021 03:39	JT
1,2-Dibromoethane	BRL	5.0		ug/L	314284	1	04/27/2021 03:39	JT
1,2-Dichlorobenzene	BRL	5.0		ug/L	314284	1	04/27/2021 03:39	JT
1,2-Dichloroethane	BRL	5.0		ug/L	314284	1	04/27/2021 03:39	JT
1,2-Dichloropropane	BRL	5.0		ug/L	314284	1	04/27/2021 03:39	JT
1,3-Dichlorobenzene	BRL	5.0		ug/L	314284	1	04/27/2021 03:39	JT
1,4-Dichlorobenzene	BRL	5.0		ug/L	314284	1	04/27/2021 03:39	JT
2-Butanone	BRL	50		ug/L	314284	1	04/27/2021 03:39	JT
2-Hexanone	BRL	10		ug/L	314284	1	04/27/2021 03:39	JT
4-Methyl-2-pentanone	BRL	10		ug/L	314284	1	04/27/2021 03:39	JT
Acetone	BRL	50		ug/L	314284	1	04/27/2021 03:39	JT

Qualifiers: * Value exceeds maximum contaminant level

E Estimated (value above quantitation range)

BRL Below reporting limit

S Spike Recovery outside limits due to matrix

H Holding times for preparation or analysis exceeded

Narr See case narrative

N Analyte not NELAC certified

F Analyzed in the lab which is a deviation from the method

B Analyte detected in the associated method blank

< Less than Result value

> Greater than Result value

J Estimated value detected below Reporting Limit

Client: Geo-Hydro Engineers, Inc.	Client Sample ID: CL-08-WP
Project Name: Cedartown Formal Municipal landfill Monitoring	Collection Date: 4/21/2021 7:00:00 PM
Lab ID: 2104Q56-001	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260D		(SW5030B)						
Benzene	BRL	5.0		ug/L	314284	1	04/27/2021 03:39	JT
Bromodichloromethane	BRL	5.0		ug/L	314284	1	04/27/2021 03:39	JT
Bromoform	BRL	5.0		ug/L	314284	1	04/27/2021 03:39	JT
Bromomethane	BRL	5.0		ug/L	314284	1	04/27/2021 03:39	JT
Carbon disulfide	BRL	5.0		ug/L	314284	1	04/27/2021 03:39	JT
Carbon tetrachloride	BRL	5.0		ug/L	314284	1	04/27/2021 03:39	JT
Chlorobenzene		5.2		ug/L	314284	1	04/27/2021 03:39	JT
Chloroethane	BRL	10		ug/L	314284	1	04/27/2021 03:39	JT
Chloroform	BRL	5.0		ug/L	314284	1	04/27/2021 03:39	JT
Chloromethane	BRL	10		ug/L	314284	1	04/27/2021 03:39	JT
cis-1,2-Dichloroethene	BRL	5.0		ug/L	314284	1	04/27/2021 03:39	JT
cis-1,3-Dichloropropene	BRL	5.0		ug/L	314284	1	04/27/2021 03:39	JT
Cyclohexane	BRL	5.0		ug/L	314284	1	04/27/2021 03:39	JT
Dibromochloromethane	BRL	5.0		ug/L	314284	1	04/27/2021 03:39	JT
Dichlorodifluoromethane	BRL	10		ug/L	314284	1	04/27/2021 03:39	JT
Ethylbenzene	BRL	5.0		ug/L	314284	1	04/27/2021 03:39	JT
Freon-113	BRL	10		ug/L	314284	1	04/27/2021 03:39	JT
Isopropylbenzene		16		ug/L	314284	1	04/27/2021 03:39	JT
m,p-Xylene		21		ug/L	314284	1	04/27/2021 03:39	JT
Methyl acetate	BRL	5.0		ug/L	314284	1	04/27/2021 03:39	JT
Methyl tert-butyl ether	BRL	5.0		ug/L	314284	1	04/27/2021 03:39	JT
Methylcyclohexane	BRL	5.0		ug/L	314284	1	04/27/2021 03:39	JT
Methylene chloride	BRL	5.0		ug/L	314284	1	04/27/2021 03:39	JT
o-Xylene	BRL	5.0		ug/L	314284	1	04/27/2021 03:39	JT
Styrene	BRL	5.0		ug/L	314284	1	04/27/2021 03:39	JT
Tetrachloroethene	BRL	5.0		ug/L	314284	1	04/27/2021 03:39	JT
Toluene	BRL	5.0		ug/L	314284	1	04/27/2021 03:39	JT
trans-1,2-Dichloroethene	BRL	5.0		ug/L	314284	1	04/27/2021 03:39	JT
trans-1,3-Dichloropropene	BRL	5.0		ug/L	314284	1	04/27/2021 03:39	JT
Trichloroethene	BRL	5.0		ug/L	314284	1	04/27/2021 03:39	JT
Trichlorofluoromethane	BRL	5.0		ug/L	314284	1	04/27/2021 03:39	JT
Vinyl chloride	BRL	2.0		ug/L	314284	1	04/27/2021 03:39	JT
Surr: 4-Bromofluorobenzene	95.8	74.9-127	%REC		314284	1	04/27/2021 03:39	JT
Surr: Dibromofluoromethane	97.7	78.9-121	%REC		314284	1	04/27/2021 03:39	JT
Surr: Toluene-d8	96.4	81.5-120	%REC		314284	1	04/27/2021 03:39	JT
POLYCHLORINATED BIPHENYLS SW8082A		(SW3510C)						
Aroclor 1016	BRL	1.5		ug/L	314187	3	04/27/2021 13:27	UH
Aroclor 1221	BRL	1.5		ug/L	314187	3	04/27/2021 13:27	UH
Aroclor 1232	BRL	1.5		ug/L	314187	3	04/27/2021 13:27	UH
Aroclor 1242	BRL	1.5		ug/L	314187	3	04/27/2021 13:27	UH
Aroclor 1248	BRL	1.5		ug/L	314187	3	04/27/2021 13:27	UH
Aroclor 1254	BRL	1.5		ug/L	314187	3	04/27/2021 13:27	UH
Aroclor 1260	BRL	1.5		ug/L	314187	3	04/27/2021 13:27	UH
Surr: Decachlorobiphenyl	38.8	30-120	%REC		314187	1	04/26/2021 21:42	UH

Qualifiers: * Value exceeds maximum contaminant level

E Estimated (value above quantitation range)

BRL Below reporting limit

S Spike Recovery outside limits due to matrix

H Holding times for preparation or analysis exceeded

Narr See case narrative

N Analyte not NELAC certified

F Analyzed in the lab which is a deviation from the method

B Analyte detected in the associated method blank

< Less than Result value

> Greater than Result value

J Estimated value detected below Reporting Limit

Client: Geo-Hydro Engineers, Inc.	Client Sample ID: CL-08-WP
Project Name: Cedartown Formal Municipal landfill Monitoring	Collection Date: 4/21/2021 7:00:00 PM
Lab ID: 2104Q56-001	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
POLYCHLORINATED BIPHENYLS SW8082A								
Surr: Tetrachloro-m-xylene	79.2	46.5-120	%REC	314187	1	04/26/2021 21:42	UH	
METALS, TOTAL SW6010D								
Aluminum	2.42	0.200	mg/L	314227	1	04/27/2021 13:13	JM	
Antimony	BRL	0.0200	mg/L	314227	1	04/27/2021 13:13	JM	
Arsenic	BRL	0.0500	mg/L	314227	1	04/27/2021 13:13	JM	
Barium	1.31	0.0200	mg/L	314227	1	04/27/2021 13:13	JM	
Beryllium	BRL	0.0100	mg/L	314227	1	04/27/2021 13:13	JM	
Cadmium	BRL	0.0050	mg/L	314227	1	04/27/2021 13:13	JM	
Calcium	106	0.100	mg/L	314227	1	04/27/2021 13:13	JM	
Chromium	0.0106	0.0100	mg/L	314227	1	04/27/2021 13:13	JM	
Cobalt	BRL	0.0200	mg/L	314227	1	04/27/2021 13:13	JM	
Copper	BRL	0.0100	mg/L	314227	1	04/27/2021 13:13	JM	
Iron	49.0	0.100	mg/L	314227	1	04/27/2021 13:13	JM	
Lead	0.0217	0.0100	mg/L	314227	1	04/27/2021 13:13	JM	
Magnesium	22.7	0.100	mg/L	314227	1	04/27/2021 13:13	JM	
Manganese	1.19	0.0150	mg/L	314227	1	04/27/2021 13:13	JM	
Nickel	0.0309	0.0200	mg/L	314227	1	04/27/2021 13:13	JM	
Potassium	21.8	0.500	mg/L	314227	1	04/27/2021 13:13	JM	
Selenium	BRL	0.0200	mg/L	314227	1	04/27/2021 13:13	JM	
Silver	BRL	0.0100	mg/L	314227	1	04/27/2021 13:13	JM	
Sodium	37.5	1.00	mg/L	314227	1	04/27/2021 13:13	JM	
Thallium	BRL	0.0200	mg/L	314227	1	04/27/2021 13:13	JM	
Vanadium	0.0105	0.0100	mg/L	314227	1	04/27/2021 13:13	JM	
Zinc	0.0713	0.0200	mg/L	314227	1	04/27/2021 13:13	JM	
Mercury, Total SW7470A								
Mercury	BRL	0.00020	mg/L	314302	1	04/27/2021 18:40	SK	
ION SCAN SW9056A								
Chloride	27	1.0	mg/L	R453243	1	04/28/2021 16:23	IP	
Sulfate	1.5	1.0	mg/L	R453243	1	04/28/2021 16:23	IP	
HARDNESS SM2340 B								
Hardness, Calcium/Magnesium (As CaCO3)	359	1.00	mg/L CaCO3	314227	1	04/27/2021 13:13	JM	
Cyanide SW9014								
Cyanide, Total	BRL	0.010	mg/L	314408	1	04/29/2021 10:55	CB	
CHLORINATED PESTICIDES, TCL SW8081B								
4,4'-DDD	BRL	0.10	ug/L	314128	1	04/26/2021 21:42	UH	
4,4'-DDE	BRL	0.10	ug/L	314128	1	04/26/2021 21:42	UH	
4,4'-DDT	BRL	0.10	ug/L	314128	1	04/26/2021 21:42	UH	
Aldrin	BRL	0.050	ug/L	314128	1	04/26/2021 21:42	UH	
alpha-BHC	BRL	0.050	ug/L	314128	1	04/26/2021 21:42	UH	

Qualifiers: * Value exceeds maximum contaminant level

E Estimated (value above quantitation range)

BRL Below reporting limit

S Spike Recovery outside limits due to matrix

H Holding times for preparation or analysis exceeded

Narr See case narrative

N Analyte not NELAC certified

F Analyzed in the lab which is a deviation from the method

B Analyte detected in the associated method blank

< Less than Result value

> Greater than Result value

J Estimated value detected below Reporting Limit

Client:	Geo-Hydro Engineers, Inc.	Client Sample ID:	CL-08-WP
Project Name:	Cedartown Formal Municipal landfill Monitoring	Collection Date:	4/21/2021 7:00:00 PM
Lab ID:	2104Q56-001	Matrix:	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
CHLORINATED PESTICIDES, TCL SW8081B								
alpha-Chlordane	BRL	0.050		ug/L	314128	1	04/26/2021 21:42	UH
beta-BHC	BRL	0.050		ug/L	314128	1	04/26/2021 21:42	UH
delta-BHC	BRL	0.050		ug/L	314128	1	04/26/2021 21:42	UH
Dieldrin	BRL	0.10		ug/L	314128	1	04/26/2021 21:42	UH
Endosulfan I	BRL	0.050		ug/L	314128	1	04/26/2021 21:42	UH
Endosulfan II	BRL	0.10		ug/L	314128	1	04/26/2021 21:42	UH
Endosulfan sulfate	BRL	0.10		ug/L	314128	1	04/26/2021 21:42	UH
Endrin	BRL	0.10		ug/L	314128	1	04/26/2021 21:42	UH
Endrin aldehyde	BRL	0.10		ug/L	314128	1	04/26/2021 21:42	UH
Endrin ketone	BRL	0.10		ug/L	314128	1	04/26/2021 21:42	UH
gamma-BHC	BRL	0.050		ug/L	314128	1	04/26/2021 21:42	UH
gamma-Chlordane	BRL	0.050		ug/L	314128	1	04/26/2021 21:42	UH
Heptachlor	BRL	0.050		ug/L	314128	1	04/26/2021 21:42	UH
Heptachlor epoxide	BRL	0.050		ug/L	314128	1	04/26/2021 21:42	UH
Methoxychlor	BRL	0.50		ug/L	314128	1	04/26/2021 21:42	UH
Toxaphene	BRL	15		ug/L	314128	3	04/27/2021 13:27	UH
Surr: Decachlorobiphenyl	36.2	22.9-130	%REC		314128	1	04/26/2021 21:42	UH
Surr: Tetrachloro-m-xylene	62	37.9-130	%REC		314128	1	04/26/2021 21:42	UH

Alkalinity by SM2320B

Alkalinity, Total (As CaCO ₃)	572	3.00	mg/L	R453035	1	04/28/2021 12:16	CB
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Qualifiers:	*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
	BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
	H	Holding times for preparation or analysis exceeded	Narr	See case narrative
	N	Analyte not NELAC certified	F	Analyzed in the lab which is a deviation from the method
	B	Analyte detected in the associated method blank	<	Less than Result value
	>	Greater than Result value	J	Estimated value detected below Reporting Limit

Client:	Geo-Hydro Engineers, Inc.	Client Sample ID:	LW-6
Project Name:	Cedartown Formal Municipal landfill Monitoring	Collection Date:	4/21/2021 5:00:00 PM
Lab ID:	2104Q56-002	Matrix:	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL-SEMOVOLATILE ORGANICS SW8270E		(SW3510C)						
1,1'-Biphenyl	BRL	10		ug/L	314156	1	04/28/2021 16:21	YH
2,4,5-Trichlorophenol	BRL	25		ug/L	314156	1	04/28/2021 16:21	YH
2,4,6-Trichlorophenol	BRL	10		ug/L	314156	1	04/28/2021 16:21	YH
2,4-Dichlorophenol	BRL	10		ug/L	314156	1	04/28/2021 16:21	YH
2,4-Dimethylphenol	BRL	10		ug/L	314156	1	04/28/2021 16:21	YH
2,4-Dinitrophenol	BRL	25		ug/L	314156	1	04/28/2021 16:21	YH
2,4-Dinitrotoluene	BRL	10		ug/L	314156	1	04/28/2021 16:21	YH
2,6-Dinitrotoluene	BRL	10		ug/L	314156	1	04/28/2021 16:21	YH
2-Chloronaphthalene	BRL	10		ug/L	314156	1	04/28/2021 16:21	YH
2-Chlorophenol	BRL	10		ug/L	314156	1	04/28/2021 16:21	YH
2-Methylnaphthalene	BRL	10		ug/L	314156	1	04/28/2021 16:21	YH
2-Methylphenol	BRL	10		ug/L	314156	1	04/28/2021 16:21	YH
2-Nitroaniline	BRL	25		ug/L	314156	1	04/28/2021 16:21	YH
2-Nitrophenol	BRL	10		ug/L	314156	1	04/28/2021 16:21	YH
3,3'-Dichlorobenzidine	BRL	10		ug/L	314156	1	04/28/2021 16:21	YH
3-Nitroaniline	BRL	25		ug/L	314156	1	04/28/2021 16:21	YH
4,6-Dinitro-2-methylphenol	BRL	25		ug/L	314156	1	04/28/2021 16:21	YH
4-Bromophenyl phenyl ether	BRL	10		ug/L	314156	1	04/28/2021 16:21	YH
4-Chloro-3-methylphenol	BRL	10		ug/L	314156	1	04/28/2021 16:21	YH
4-Chloroaniline	BRL	10		ug/L	314156	1	04/28/2021 16:21	YH
4-Chlorophenyl phenyl ether	BRL	10		ug/L	314156	1	04/28/2021 16:21	YH
4-Methylphenol	BRL	10		ug/L	314156	1	04/28/2021 16:21	YH
4-Nitroaniline	BRL	25		ug/L	314156	1	04/28/2021 16:21	YH
4-Nitrophenol	BRL	25		ug/L	314156	1	04/28/2021 16:21	YH
Acenaphthene	BRL	10		ug/L	314156	1	04/28/2021 16:21	YH
Acenaphthylene	BRL	10		ug/L	314156	1	04/28/2021 16:21	YH
Acetophenone	BRL	10		ug/L	314156	1	04/28/2021 16:21	YH
Anthracene	BRL	10		ug/L	314156	1	04/28/2021 16:21	YH
Atrazine	BRL	10		ug/L	314156	1	04/28/2021 16:21	YH
Benz(a)anthracene	BRL	10		ug/L	314156	1	04/28/2021 16:21	YH
Benzaldehyde	BRL	10		ug/L	314156	1	04/28/2021 16:21	YH
Benzo(a)pyrene	BRL	10		ug/L	314156	1	04/28/2021 16:21	YH
Benzo(b)fluoranthene	BRL	10		ug/L	314156	1	04/28/2021 16:21	YH
Benzo(g,h,i)perylene	BRL	10		ug/L	314156	1	04/28/2021 16:21	YH
Benzo(k)fluoranthene	BRL	10		ug/L	314156	1	04/28/2021 16:21	YH
Bis(2-chloroethoxy)methane	BRL	10		ug/L	314156	1	04/28/2021 16:21	YH
Bis(2-chloroethyl)ether	BRL	10		ug/L	314156	1	04/28/2021 16:21	YH
Bis(2-chloroisopropyl)ether	BRL	10		ug/L	314156	1	04/28/2021 16:21	YH
Bis(2-ethylhexyl)phthalate	BRL	10		ug/L	314156	1	04/28/2021 16:21	YH
Butyl benzyl phthalate	BRL	10		ug/L	314156	1	04/28/2021 16:21	YH
Caprolactam	BRL	10		ug/L	314156	1	04/28/2021 16:21	YH
Carbazole	BRL	10		ug/L	314156	1	04/28/2021 16:21	YH
Chrysene	BRL	10		ug/L	314156	1	04/28/2021 16:21	YH
Di-n-butyl phthalate	BRL	10		ug/L	314156	1	04/28/2021 16:21	YH
Di-n-octyl phthalate	BRL	10		ug/L	314156	1	04/28/2021 16:21	YH

Qualifiers: * Value exceeds maximum contaminant level

E Estimated (value above quantitation range)

BRL Below reporting limit

S Spike Recovery outside limits due to matrix

H Holding times for preparation or analysis exceeded

Narr See case narrative

N Analyte not NELAC certified

F Analyzed in the lab which is a deviation from the method

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J Estimated value detected below Reporting Limit

Client:	Geo-Hydro Engineers, Inc.	Client Sample ID:	LW-6
Project Name:	Cedartown Formal Municipal landfill Monitoring	Collection Date:	4/21/2021 5:00:00 PM
Lab ID:	2104Q56-002	Matrix:	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL-SEMOVOLATILE ORGANICS SW8270E		(SW3510C)						
Dibenz(a,h)anthracene	BRL	10		ug/L	314156	1	04/28/2021 16:21	YH
Dibenzofuran	BRL	10		ug/L	314156	1	04/28/2021 16:21	YH
Diethyl phthalate	BRL	10		ug/L	314156	1	04/28/2021 16:21	YH
Dimethyl phthalate	BRL	10		ug/L	314156	1	04/28/2021 16:21	YH
Fluoranthene	BRL	10		ug/L	314156	1	04/28/2021 16:21	YH
Fluorene	BRL	10		ug/L	314156	1	04/28/2021 16:21	YH
Hexachlorobenzene	BRL	10		ug/L	314156	1	04/28/2021 16:21	YH
Hexachlorobutadiene	BRL	10		ug/L	314156	1	04/28/2021 16:21	YH
Hexachlorocyclopentadiene	BRL	10		ug/L	314156	1	04/28/2021 16:21	YH
Hexachloroethane	BRL	10		ug/L	314156	1	04/28/2021 16:21	YH
Indeno(1,2,3-cd)pyrene	BRL	10		ug/L	314156	1	04/28/2021 16:21	YH
Isophorone	BRL	10		ug/L	314156	1	04/28/2021 16:21	YH
N-Nitrosodi-n-propylamine	BRL	10		ug/L	314156	1	04/28/2021 16:21	YH
N-Nitrosodiphenylamine	BRL	10		ug/L	314156	1	04/28/2021 16:21	YH
Naphthalene	BRL	10		ug/L	314156	1	04/28/2021 16:21	YH
Nitrobenzene	BRL	10		ug/L	314156	1	04/28/2021 16:21	YH
Pentachlorophenol	BRL	25		ug/L	314156	1	04/28/2021 16:21	YH
Phenanthrene	BRL	10		ug/L	314156	1	04/28/2021 16:21	YH
Phenol	BRL	10		ug/L	314156	1	04/28/2021 16:21	YH
Pyrene	BRL	10		ug/L	314156	1	04/28/2021 16:21	YH
Surr: 2,4,6-Tribromophenol	39.2	47-127	S	%REC	314156	1	04/28/2021 16:21	YH
Surr: 2-Fluorobiphenyl	85	47.4-119		%REC	314156	1	04/28/2021 16:21	YH
Surr: 2-Fluorophenol	10.6	26.2-120	S	%REC	314156	1	04/28/2021 16:21	YH
Surr: 4-Terphenyl-d14	88.1	45-133		%REC	314156	1	04/28/2021 16:21	YH
Surr: Nitrobenzene-d5	74	41.9-121		%REC	314156	1	04/28/2021 16:21	YH
Surr: Phenol-d5	8.54	17.8-120	S	%REC	314156	1	04/28/2021 16:21	YH
TCL VOLATILE ORGANICS SW8260D		(SW5030B)						
1,1,1-Trichloroethane	BRL	5.0		ug/L	314284	1	04/27/2021 03:59	JT
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	314284	1	04/27/2021 03:59	JT
1,1,2-Trichloroethane	BRL	5.0		ug/L	314284	1	04/27/2021 03:59	JT
1,1-Dichloroethane	BRL	5.0		ug/L	314284	1	04/27/2021 03:59	JT
1,1-Dichloroethene	BRL	5.0		ug/L	314284	1	04/27/2021 03:59	JT
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	314284	1	04/27/2021 03:59	JT
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	314284	1	04/27/2021 03:59	JT
1,2-Dibromoethane	BRL	5.0		ug/L	314284	1	04/27/2021 03:59	JT
1,2-Dichlorobenzene	BRL	5.0		ug/L	314284	1	04/27/2021 03:59	JT
1,2-Dichloroethane	BRL	5.0		ug/L	314284	1	04/27/2021 03:59	JT
1,2-Dichloropropane	BRL	5.0		ug/L	314284	1	04/27/2021 03:59	JT
1,3-Dichlorobenzene	BRL	5.0		ug/L	314284	1	04/27/2021 03:59	JT
1,4-Dichlorobenzene		6.8	5.0	ug/L	314284	1	04/27/2021 03:59	JT
2-Butanone	BRL	50		ug/L	314284	1	04/27/2021 03:59	JT
2-Hexanone	BRL	10		ug/L	314284	1	04/27/2021 03:59	JT
4-Methyl-2-pentanone	BRL	10		ug/L	314284	1	04/27/2021 03:59	JT
Acetone	BRL	50		ug/L	314284	1	04/27/2021 03:59	JT

Qualifiers: * Value exceeds maximum contaminant level

E Estimated (value above quantitation range)

BRL Below reporting limit

S Spike Recovery outside limits due to matrix

H Holding times for preparation or analysis exceeded

Narr See case narrative

N Analyte not NELAC certified

F Analyzed in the lab which is a deviation from the method

B Analyte detected in the associated method blank

< Less than Result value

> Greater than Result value

J Estimated value detected below Reporting Limit

Client: Geo-Hydro Engineers, Inc.	Client Sample ID: LW-6
Project Name: Cedartown Formal Municipal landfill Monitoring	Collection Date: 4/21/2021 5:00:00 PM
Lab ID: 2104Q56-002	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260D		(SW5030B)						
Benzene	6.3	5.0		ug/L	314284	1	04/27/2021 03:59	JT
Bromodichloromethane	BRL	5.0		ug/L	314284	1	04/27/2021 03:59	JT
Bromoform	BRL	5.0		ug/L	314284	1	04/27/2021 03:59	JT
Bromomethane	BRL	5.0		ug/L	314284	1	04/27/2021 03:59	JT
Carbon disulfide	BRL	5.0		ug/L	314284	1	04/27/2021 03:59	JT
Carbon tetrachloride	BRL	5.0		ug/L	314284	1	04/27/2021 03:59	JT
Chlorobenzene	15	5.0		ug/L	314284	1	04/27/2021 03:59	JT
Chloroethane	BRL	10		ug/L	314284	1	04/27/2021 03:59	JT
Chloroform	BRL	5.0		ug/L	314284	1	04/27/2021 03:59	JT
Chloromethane	BRL	10		ug/L	314284	1	04/27/2021 03:59	JT
cis-1,2-Dichloroethene	BRL	5.0		ug/L	314284	1	04/27/2021 03:59	JT
cis-1,3-Dichloropropene	BRL	5.0		ug/L	314284	1	04/27/2021 03:59	JT
Cyclohexane	BRL	5.0		ug/L	314284	1	04/27/2021 03:59	JT
Dibromochloromethane	BRL	5.0		ug/L	314284	1	04/27/2021 03:59	JT
Dichlorodifluoromethane	BRL	10		ug/L	314284	1	04/27/2021 03:59	JT
Ethylbenzene	BRL	5.0		ug/L	314284	1	04/27/2021 03:59	JT
Freon-113	BRL	10		ug/L	314284	1	04/27/2021 03:59	JT
Isopropylbenzene	BRL	5.0		ug/L	314284	1	04/27/2021 03:59	JT
m,p-Xylene	BRL	5.0		ug/L	314284	1	04/27/2021 03:59	JT
Methyl acetate	BRL	5.0		ug/L	314284	1	04/27/2021 03:59	JT
Methyl tert-butyl ether	BRL	5.0		ug/L	314284	1	04/27/2021 03:59	JT
Methylcyclohexane	BRL	5.0		ug/L	314284	1	04/27/2021 03:59	JT
Methylene chloride	BRL	5.0		ug/L	314284	1	04/27/2021 03:59	JT
o-Xylene	BRL	5.0		ug/L	314284	1	04/27/2021 03:59	JT
Styrene	BRL	5.0		ug/L	314284	1	04/27/2021 03:59	JT
Tetrachloroethene	BRL	5.0		ug/L	314284	1	04/27/2021 03:59	JT
Toluene	BRL	5.0		ug/L	314284	1	04/27/2021 03:59	JT
trans-1,2-Dichloroethene	BRL	5.0		ug/L	314284	1	04/27/2021 03:59	JT
trans-1,3-Dichloropropene	BRL	5.0		ug/L	314284	1	04/27/2021 03:59	JT
Trichloroethene	BRL	5.0		ug/L	314284	1	04/27/2021 03:59	JT
Trichlorofluoromethane	BRL	5.0		ug/L	314284	1	04/27/2021 03:59	JT
Vinyl chloride	BRL	2.0		ug/L	314284	1	04/27/2021 03:59	JT
Surr: 4-Bromofluorobenzene	95	74.9-127	%REC		314284	1	04/27/2021 03:59	JT
Surr: Dibromofluoromethane	96.9	78.9-121	%REC		314284	1	04/27/2021 03:59	JT
Surr: Toluene-d8	96.7	81.5-120	%REC		314284	1	04/27/2021 03:59	JT
POLYCHLORINATED BIPHENYLS SW8082A		(SW3510C)						
Aroclor 1016	BRL	1.0		ug/L	314187	2	04/27/2021 13:38	UH
Aroclor 1221	BRL	1.0		ug/L	314187	2	04/27/2021 13:38	UH
Aroclor 1232	BRL	1.0		ug/L	314187	2	04/27/2021 13:38	UH
Aroclor 1242	BRL	1.0		ug/L	314187	2	04/27/2021 13:38	UH
Aroclor 1248	BRL	1.0		ug/L	314187	2	04/27/2021 13:38	UH
Aroclor 1254	BRL	1.5		ug/L	314187	3	04/27/2021 13:49	UH
Aroclor 1260	BRL	1.5		ug/L	314187	3	04/27/2021 13:49	UH
Surr: Decachlorobiphenyl	50.6	30-120	%REC		314187	1	04/26/2021 21:54	UH

Qualifiers: * Value exceeds maximum contaminant level

E Estimated (value above quantitation range)

BRL Below reporting limit

S Spike Recovery outside limits due to matrix

H Holding times for preparation or analysis exceeded

Narr See case narrative

N Analyte not NELAC certified

F Analyzed in the lab which is a deviation from the method

B Analyte detected in the associated method blank

< Less than Result value

> Greater than Result value

J Estimated value detected below Reporting Limit

Client: Geo-Hydro Engineers, Inc.	Client Sample ID: LW-6
Project Name: Cedartown Formal Municipal landfill Monitoring	Collection Date: 4/21/2021 5:00:00 PM
Lab ID: 2104Q56-002	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
POLYCHLORINATED BIPHENYLS SW8082A								
Surr: Tetrachloro-m-xylene	72.7	46.5-120		%REC	314187	1	04/26/2021 21:54	UH
METALS, TOTAL SW6010D								
Aluminum	BRL	0.200		mg/L	314227	1	04/27/2021 13:16	JM
Antimony	BRL	0.0200		mg/L	314227	1	04/27/2021 13:16	JM
Arsenic	BRL	0.0500		mg/L	314227	1	04/27/2021 13:16	JM
Barium	0.130	0.0200		mg/L	314227	1	04/27/2021 13:16	JM
Beryllium	BRL	0.0100		mg/L	314227	1	04/27/2021 13:16	JM
Cadmium	BRL	0.0050		mg/L	314227	1	04/27/2021 13:16	JM
Calcium	249	0.500		mg/L	314227	5	04/27/2021 13:51	JM
Chromium	BRL	0.0100		mg/L	314227	1	04/27/2021 13:16	JM
Cobalt	BRL	0.0200		mg/L	314227	1	04/27/2021 13:16	JM
Copper	BRL	0.0100		mg/L	314227	1	04/27/2021 13:16	JM
Iron	22.7	0.100		mg/L	314227	1	04/27/2021 13:16	JM
Lead	BRL	0.0100		mg/L	314227	1	04/27/2021 13:16	JM
Magnesium	19.8	0.500		mg/L	314227	5	04/27/2021 13:51	JM
Manganese	1.61	0.0150		mg/L	314227	1	04/27/2021 13:16	JM
Nickel	BRL	0.0200		mg/L	314227	1	04/27/2021 13:16	JM
Potassium	22.0	0.500		mg/L	314227	1	04/27/2021 13:16	JM
Selenium	BRL	0.0200		mg/L	314227	1	04/27/2021 13:16	JM
Silver	BRL	0.0100		mg/L	314227	1	04/27/2021 13:16	JM
Sodium	23.4	1.00		mg/L	314227	1	04/27/2021 13:16	JM
Thallium	BRL	0.0200		mg/L	314227	1	04/27/2021 13:16	JM
Vanadium	BRL	0.0100		mg/L	314227	1	04/27/2021 13:16	JM
Zinc	BRL	0.0200		mg/L	314227	1	04/27/2021 13:16	JM
Mercury, Total SW7470A								
Mercury	BRL	0.00020		mg/L	314302	1	04/27/2021 18:44	SK
ION SCAN SW9056A								
Chloride	9.6	1.0		mg/L	R453243	1	04/28/2021 16:39	IP
Sulfate	410	20		mg/L	R453243	20	04/28/2021 23:37	IP
HARDNESS SM2340 B								
Hardness, Calcium/Magnesium (As CaCO3)	703	1.00		mg/L CaCO3	314227	1	04/27/2021 13:51	JM
Cyanide SW9014								
Cyanide, Total	BRL	0.010		mg/L	314408	1	04/29/2021 11:05	CB
CHLORINATED PESTICIDES, TCL SW8081B								
4,4'-DDD	BRL	0.10		ug/L	314128	1	04/26/2021 21:54	UH
4,4'-DDE	BRL	0.10		ug/L	314128	1	04/26/2021 21:54	UH
4,4'-DDT	BRL	0.10		ug/L	314128	1	04/26/2021 21:54	UH
Aldrin	BRL	0.050		ug/L	314128	1	04/26/2021 21:54	UH
alpha-BHC	BRL	0.050		ug/L	314128	1	04/26/2021 21:54	UH

Qualifiers: * Value exceeds maximum contaminant level

E Estimated (value above quantitation range)

BRL Below reporting limit

S Spike Recovery outside limits due to matrix

H Holding times for preparation or analysis exceeded

Narr See case narrative

N Analyte not NELAC certified

F Analyzed in the lab which is a deviation from the method

B Analyte detected in the associated method blank

< Less than Result value

> Greater than Result value

J Estimated value detected below Reporting Limit

Client:	Geo-Hydro Engineers, Inc.	Client Sample ID:	LW-6
Project Name:	Cedartown Formal Municipal landfill Monitoring	Collection Date:	4/21/2021 5:00:00 PM
Lab ID:	2104Q56-002	Matrix:	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
CHLORINATED PESTICIDES, TCL SW8081B								
alpha-Chlordane	BRL	0.050		ug/L	314128	1	04/26/2021 21:54	UH
beta-BHC	BRL	0.050		ug/L	314128	1	04/26/2021 21:54	UH
delta-BHC	BRL	0.050		ug/L	314128	1	04/26/2021 21:54	UH
Dieldrin	BRL	0.10		ug/L	314128	1	04/26/2021 21:54	UH
Endosulfan I	BRL	0.050		ug/L	314128	1	04/26/2021 21:54	UH
Endosulfan II	BRL	0.10		ug/L	314128	1	04/26/2021 21:54	UH
Endosulfan sulfate	BRL	0.10		ug/L	314128	1	04/26/2021 21:54	UH
Endrin	BRL	0.10		ug/L	314128	1	04/26/2021 21:54	UH
Endrin aldehyde	BRL	0.10		ug/L	314128	1	04/26/2021 21:54	UH
Endrin ketone	BRL	0.10		ug/L	314128	1	04/26/2021 21:54	UH
gamma-BHC	BRL	0.050		ug/L	314128	1	04/26/2021 21:54	UH
gamma-Chlordane	BRL	0.050		ug/L	314128	1	04/26/2021 21:54	UH
Heptachlor	BRL	0.050		ug/L	314128	1	04/26/2021 21:54	UH
Heptachlor epoxide	BRL	0.050		ug/L	314128	1	04/26/2021 21:54	UH
Methoxychlor	BRL	0.50		ug/L	314128	1	04/26/2021 21:54	UH
Toxaphene	BRL	15		ug/L	314128	3	04/27/2021 13:49	UH
Surr: Decachlorobiphenyl	50	22.9-130	%REC		314128	1	04/26/2021 21:54	UH
Surr: Tetrachloro-m-xylene	67	37.9-130	%REC		314128	1	04/26/2021 21:54	UH

Alkalinity by SM2320B

Alkalinity, Total (As CaCO ₃)	731	3.00	mg/L	R453035	1	04/28/2021 12:16	CB
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Qualifiers:	*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
	BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
	H	Holding times for preparation or analysis exceeded	Narr	See case narrative
	N	Analyte not NELAC certified	F	Analyzed in the lab which is a deviation from the method
	B	Analyte detected in the associated method blank	<	Less than Result value
	>	Greater than Result value	J	Estimated value detected below Reporting Limit

Client:	Geo-Hydro Engineers, Inc.	Client Sample ID:	OW-3
Project Name:	Cedartown Formal Municipal landfill Monitoring	Collection Date:	4/21/2021 6:26:00 PM
Lab ID:	2104Q56-003	Matrix:	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL-SEMOVOLATILE ORGANICS SW8270E		(SW3510C)						
1,1'-Biphenyl	BRL	10		ug/L	314156	1	04/28/2021 16:47	YH
2,4,5-Trichlorophenol	BRL	25		ug/L	314156	1	04/28/2021 16:47	YH
2,4,6-Trichlorophenol	BRL	10		ug/L	314156	1	04/28/2021 16:47	YH
2,4-Dichlorophenol	BRL	10		ug/L	314156	1	04/28/2021 16:47	YH
2,4-Dimethylphenol	BRL	10		ug/L	314156	1	04/28/2021 16:47	YH
2,4-Dinitrophenol	BRL	25		ug/L	314156	1	04/28/2021 16:47	YH
2,4-Dinitrotoluene	BRL	10		ug/L	314156	1	04/28/2021 16:47	YH
2,6-Dinitrotoluene	BRL	10		ug/L	314156	1	04/28/2021 16:47	YH
2-Chloronaphthalene	BRL	10		ug/L	314156	1	04/28/2021 16:47	YH
2-Chlorophenol	BRL	10		ug/L	314156	1	04/28/2021 16:47	YH
2-Methylnaphthalene	BRL	10		ug/L	314156	1	04/28/2021 16:47	YH
2-Methylphenol	BRL	10		ug/L	314156	1	04/28/2021 16:47	YH
2-Nitroaniline	BRL	25		ug/L	314156	1	04/28/2021 16:47	YH
2-Nitrophenol	BRL	10		ug/L	314156	1	04/28/2021 16:47	YH
3,3'-Dichlorobenzidine	BRL	10		ug/L	314156	1	04/28/2021 16:47	YH
3-Nitroaniline	BRL	25		ug/L	314156	1	04/28/2021 16:47	YH
4,6-Dinitro-2-methylphenol	BRL	25		ug/L	314156	1	04/28/2021 16:47	YH
4-Bromophenyl phenyl ether	BRL	10		ug/L	314156	1	04/28/2021 16:47	YH
4-Chloro-3-methylphenol	BRL	10		ug/L	314156	1	04/28/2021 16:47	YH
4-Chloroaniline	BRL	10		ug/L	314156	1	04/28/2021 16:47	YH
4-Chlorophenyl phenyl ether	BRL	10		ug/L	314156	1	04/28/2021 16:47	YH
4-Methylphenol	BRL	10		ug/L	314156	1	04/28/2021 16:47	YH
4-Nitroaniline	BRL	25		ug/L	314156	1	04/28/2021 16:47	YH
4-Nitrophenol	BRL	25		ug/L	314156	1	04/28/2021 16:47	YH
Acenaphthene	BRL	10		ug/L	314156	1	04/28/2021 16:47	YH
Acenaphthylene	BRL	10		ug/L	314156	1	04/28/2021 16:47	YH
Acetophenone	BRL	10		ug/L	314156	1	04/28/2021 16:47	YH
Anthracene	BRL	10		ug/L	314156	1	04/28/2021 16:47	YH
Atrazine	BRL	10		ug/L	314156	1	04/28/2021 16:47	YH
Benz(a)anthracene	BRL	10		ug/L	314156	1	04/28/2021 16:47	YH
Benzaldehyde	BRL	10		ug/L	314156	1	04/28/2021 16:47	YH
Benzo(a)pyrene	BRL	10		ug/L	314156	1	04/28/2021 16:47	YH
Benzo(b)fluoranthene	BRL	10		ug/L	314156	1	04/28/2021 16:47	YH
Benzo(g,h,i)perylene	BRL	10		ug/L	314156	1	04/28/2021 16:47	YH
Benzo(k)fluoranthene	BRL	10		ug/L	314156	1	04/28/2021 16:47	YH
Bis(2-chloroethoxy)methane	BRL	10		ug/L	314156	1	04/28/2021 16:47	YH
Bis(2-chloroethyl)ether	BRL	10		ug/L	314156	1	04/28/2021 16:47	YH
Bis(2-chloroisopropyl)ether	BRL	10		ug/L	314156	1	04/28/2021 16:47	YH
Bis(2-ethylhexyl)phthalate	BRL	10		ug/L	314156	1	04/28/2021 16:47	YH
Butyl benzyl phthalate	BRL	10		ug/L	314156	1	04/28/2021 16:47	YH
Caprolactam	BRL	10		ug/L	314156	1	04/28/2021 16:47	YH
Carbazole	BRL	10		ug/L	314156	1	04/28/2021 16:47	YH
Chrysene	BRL	10		ug/L	314156	1	04/28/2021 16:47	YH
Di-n-butyl phthalate	BRL	10		ug/L	314156	1	04/28/2021 16:47	YH
Di-n-octyl phthalate	BRL	10		ug/L	314156	1	04/28/2021 16:47	YH

Qualifiers: * Value exceeds maximum contaminant level

E Estimated (value above quantitation range)

BRL Below reporting limit

S Spike Recovery outside limits due to matrix

H Holding times for preparation or analysis exceeded

Narr See case narrative

N Analyte not NELAC certified

F Analyzed in the lab which is a deviation from the method

B Analyte detected in the associated method blank

< Less than Result value

> Greater than Result value

J Estimated value detected below Reporting Limit

Client: Geo-Hydro Engineers, Inc.	Client Sample ID: OW-3
Project Name: Cedartown Formal Municipal landfill Monitoring	Collection Date: 4/21/2021 6:26:00 PM
Lab ID: 2104Q56-003	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL-SEMOVOLATILE ORGANICS SW8270E		(SW3510C)						
Dibenz(a,h)anthracene	BRL	10		ug/L	314156	1	04/28/2021 16:47	YH
Dibenzofuran	BRL	10		ug/L	314156	1	04/28/2021 16:47	YH
Diethyl phthalate	BRL	10		ug/L	314156	1	04/28/2021 16:47	YH
Dimethyl phthalate	BRL	10		ug/L	314156	1	04/28/2021 16:47	YH
Fluoranthene	BRL	10		ug/L	314156	1	04/28/2021 16:47	YH
Fluorene	BRL	10		ug/L	314156	1	04/28/2021 16:47	YH
Hexachlorobenzene	BRL	10		ug/L	314156	1	04/28/2021 16:47	YH
Hexachlorobutadiene	BRL	10		ug/L	314156	1	04/28/2021 16:47	YH
Hexachlorocyclopentadiene	BRL	10		ug/L	314156	1	04/28/2021 16:47	YH
Hexachloroethane	BRL	10		ug/L	314156	1	04/28/2021 16:47	YH
Indeno(1,2,3-cd)pyrene	BRL	10		ug/L	314156	1	04/28/2021 16:47	YH
Isophorone	BRL	10		ug/L	314156	1	04/28/2021 16:47	YH
N-Nitrosodi-n-propylamine	BRL	10		ug/L	314156	1	04/28/2021 16:47	YH
N-Nitrosodiphenylamine	BRL	10		ug/L	314156	1	04/28/2021 16:47	YH
Naphthalene	BRL	10		ug/L	314156	1	04/28/2021 16:47	YH
Nitrobenzene	BRL	10		ug/L	314156	1	04/28/2021 16:47	YH
Pentachlorophenol	BRL	25		ug/L	314156	1	04/28/2021 16:47	YH
Phenanthrene	BRL	10		ug/L	314156	1	04/28/2021 16:47	YH
Phenol	BRL	10		ug/L	314156	1	04/28/2021 16:47	YH
Pyrene	BRL	10		ug/L	314156	1	04/28/2021 16:47	YH
Surr: 2,4,6-Tribromophenol	89.9	47-127	%REC	314156	1	04/28/2021 16:47	YH	
Surr: 2-Fluorobiphenyl	92	47.4-119	%REC	314156	1	04/28/2021 16:47	YH	
Surr: 2-Fluorophenol	33.6	26.2-120	%REC	314156	1	04/28/2021 16:47	YH	
Surr: 4-Terphenyl-d14	96.4	45-133	%REC	314156	1	04/28/2021 16:47	YH	
Surr: Nitrobenzene-d5	83.2	41.9-121	%REC	314156	1	04/28/2021 16:47	YH	
Surr: Phenol-d5	21.1	17.8-120	%REC	314156	1	04/28/2021 16:47	YH	
TCL VOLATILE ORGANICS SW8260D		(SW5030B)						
1,1,1-Trichloroethane	BRL	5.0		ug/L	314284	1	04/27/2021 04:20	JT
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	314284	1	04/27/2021 04:20	JT
1,1,2-Trichloroethane	BRL	5.0		ug/L	314284	1	04/27/2021 04:20	JT
1,1-Dichloroethane	BRL	5.0		ug/L	314284	1	04/27/2021 04:20	JT
1,1-Dichloroethene	BRL	5.0		ug/L	314284	1	04/27/2021 04:20	JT
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	314284	1	04/27/2021 04:20	JT
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	314284	1	04/27/2021 04:20	JT
1,2-Dibromoethane	BRL	5.0		ug/L	314284	1	04/27/2021 04:20	JT
1,2-Dichlorobenzene	BRL	5.0		ug/L	314284	1	04/27/2021 04:20	JT
1,2-Dichloroethane	BRL	5.0		ug/L	314284	1	04/27/2021 04:20	JT
1,2-Dichloropropane	BRL	5.0		ug/L	314284	1	04/27/2021 04:20	JT
1,3-Dichlorobenzene	BRL	5.0		ug/L	314284	1	04/27/2021 04:20	JT
1,4-Dichlorobenzene	BRL	5.0		ug/L	314284	1	04/27/2021 04:20	JT
2-Butanone	BRL	50		ug/L	314284	1	04/27/2021 04:20	JT
2-Hexanone	BRL	10		ug/L	314284	1	04/27/2021 04:20	JT
4-Methyl-2-pentanone	BRL	10		ug/L	314284	1	04/27/2021 04:20	JT
Acetone	BRL	50		ug/L	314284	1	04/27/2021 04:20	JT

Qualifiers: * Value exceeds maximum contaminant level

E Estimated (value above quantitation range)

BRL Below reporting limit

S Spike Recovery outside limits due to matrix

H Holding times for preparation or analysis exceeded

Narr See case narrative

N Analyte not NELAC certified

F Analyzed in the lab which is a deviation from the method

B Analyte detected in the associated method blank

< Less than Result value

> Greater than Result value

J Estimated value detected below Reporting Limit

Client: Geo-Hydro Engineers, Inc.	Client Sample ID: OW-3
Project Name: Cedartown Formal Municipal landfill Monitoring	Collection Date: 4/21/2021 6:26:00 PM
Lab ID: 2104Q56-003	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260D		(SW5030B)						
Benzene	BRL	5.0		ug/L	314284	1	04/27/2021 04:20	JT
Bromodichloromethane	BRL	5.0		ug/L	314284	1	04/27/2021 04:20	JT
Bromoform	BRL	5.0		ug/L	314284	1	04/27/2021 04:20	JT
Bromomethane	BRL	5.0		ug/L	314284	1	04/27/2021 04:20	JT
Carbon disulfide	BRL	5.0		ug/L	314284	1	04/27/2021 04:20	JT
Carbon tetrachloride	BRL	5.0		ug/L	314284	1	04/27/2021 04:20	JT
Chlorobenzene	BRL	5.0		ug/L	314284	1	04/27/2021 04:20	JT
Chloroethane	BRL	10		ug/L	314284	1	04/27/2021 04:20	JT
Chloroform	BRL	5.0		ug/L	314284	1	04/27/2021 04:20	JT
Chloromethane	BRL	10		ug/L	314284	1	04/27/2021 04:20	JT
cis-1,2-Dichloroethene	BRL	5.0		ug/L	314284	1	04/27/2021 04:20	JT
cis-1,3-Dichloropropene	BRL	5.0		ug/L	314284	1	04/27/2021 04:20	JT
Cyclohexane	BRL	5.0		ug/L	314284	1	04/27/2021 04:20	JT
Dibromochloromethane	BRL	5.0		ug/L	314284	1	04/27/2021 04:20	JT
Dichlorodifluoromethane	BRL	10		ug/L	314284	1	04/27/2021 04:20	JT
Ethylbenzene	BRL	5.0		ug/L	314284	1	04/27/2021 04:20	JT
Freon-113	BRL	10		ug/L	314284	1	04/27/2021 04:20	JT
Isopropylbenzene	BRL	5.0		ug/L	314284	1	04/27/2021 04:20	JT
m,p-Xylene	BRL	5.0		ug/L	314284	1	04/27/2021 04:20	JT
Methyl acetate	BRL	5.0		ug/L	314284	1	04/27/2021 04:20	JT
Methyl tert-butyl ether	BRL	5.0		ug/L	314284	1	04/27/2021 04:20	JT
Methylcyclohexane	BRL	5.0		ug/L	314284	1	04/27/2021 04:20	JT
Methylene chloride	BRL	5.0		ug/L	314284	1	04/27/2021 04:20	JT
o-Xylene	BRL	5.0		ug/L	314284	1	04/27/2021 04:20	JT
Styrene	BRL	5.0		ug/L	314284	1	04/27/2021 04:20	JT
Tetrachloroethene	BRL	5.0		ug/L	314284	1	04/27/2021 04:20	JT
Toluene	BRL	5.0		ug/L	314284	1	04/27/2021 04:20	JT
trans-1,2-Dichloroethene	BRL	5.0		ug/L	314284	1	04/27/2021 04:20	JT
trans-1,3-Dichloropropene	BRL	5.0		ug/L	314284	1	04/27/2021 04:20	JT
Trichloroethene	BRL	5.0		ug/L	314284	1	04/27/2021 04:20	JT
Trichlorofluoromethane	BRL	5.0		ug/L	314284	1	04/27/2021 04:20	JT
Vinyl chloride	BRL	2.0		ug/L	314284	1	04/27/2021 04:20	JT
Surr: 4-Bromofluorobenzene	96	74.9-127	%REC		314284	1	04/27/2021 04:20	JT
Surr: Dibromofluoromethane	98.1	78.9-121	%REC		314284	1	04/27/2021 04:20	JT
Surr: Toluene-d8	97.6	81.5-120	%REC		314284	1	04/27/2021 04:20	JT
POLYCHLORINATED BIPHENYLS SW8082A		(SW3510C)						
Aroclor 1016	BRL	0.50		ug/L	314187	1	04/26/2021 22:05	UH
Aroclor 1221	BRL	0.50		ug/L	314187	1	04/26/2021 22:05	UH
Aroclor 1232	BRL	0.50		ug/L	314187	1	04/26/2021 22:05	UH
Aroclor 1242	BRL	0.50		ug/L	314187	1	04/26/2021 22:05	UH
Aroclor 1248	BRL	0.50		ug/L	314187	1	04/26/2021 22:05	UH
Aroclor 1254	BRL	0.50		ug/L	314187	1	04/26/2021 22:05	UH
Aroclor 1260	BRL	0.50		ug/L	314187	1	04/26/2021 22:05	UH
Surr: Decachlorobiphenyl	53.6	30-120	%REC		314187	1	04/26/2021 22:05	UH

Qualifiers: * Value exceeds maximum contaminant level

E Estimated (value above quantitation range)

BRL Below reporting limit

S Spike Recovery outside limits due to matrix

H Holding times for preparation or analysis exceeded

Narr See case narrative

N Analyte not NELAC certified

F Analyzed in the lab which is a deviation from the method

B Analyte detected in the associated method blank

< Less than Result value

> Greater than Result value

J Estimated value detected below Reporting Limit

Client: Geo-Hydro Engineers, Inc.	Client Sample ID: OW-3
Project Name: Cedartown Formal Municipal landfill Monitoring	Collection Date: 4/21/2021 6:26:00 PM
Lab ID: 2104Q56-003	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
POLYCHLORINATED BIPHENYLS SW8082A								
Surr: Tetrachloro-m-xylene	79.8	46.5-120		%REC	314187	1	04/26/2021 22:05	UH
METALS, TOTAL SW6010D								
Aluminum	BRL	0.200		mg/L	314227	1	04/27/2021 12:51	JM
Antimony	BRL	0.0200		mg/L	314227	1	04/27/2021 12:51	JM
Arsenic	BRL	0.0500		mg/L	314227	1	04/27/2021 12:51	JM
Barium	0.145	0.0200		mg/L	314227	1	04/27/2021 12:51	JM
Beryllium	BRL	0.0100		mg/L	314227	1	04/27/2021 12:51	JM
Cadmium	BRL	0.0050		mg/L	314227	1	04/27/2021 12:51	JM
Calcium	71.4	0.100		mg/L	314227	1	04/27/2021 12:51	JM
Chromium	BRL	0.0100		mg/L	314227	1	04/27/2021 12:51	JM
Cobalt	BRL	0.0200		mg/L	314227	1	04/27/2021 12:51	JM
Copper	BRL	0.0100		mg/L	314227	1	04/27/2021 12:51	JM
Iron	3.78	0.100		mg/L	314227	1	04/27/2021 12:51	JM
Lead	BRL	0.0100		mg/L	314227	1	04/27/2021 12:51	JM
Magnesium	6.52	0.100		mg/L	314227	1	04/27/2021 12:51	JM
Manganese	3.55	0.0150		mg/L	314227	1	04/27/2021 12:51	JM
Nickel	BRL	0.0200		mg/L	314227	1	04/27/2021 12:51	JM
Potassium	1.43	0.500		mg/L	314227	1	04/27/2021 12:51	JM
Selenium	BRL	0.0200		mg/L	314227	1	04/27/2021 12:51	JM
Silver	BRL	0.0100		mg/L	314227	1	04/27/2021 12:51	JM
Sodium	7.19	1.00		mg/L	314227	1	04/27/2021 12:51	JM
Thallium	BRL	0.0200		mg/L	314227	1	04/27/2021 12:51	JM
Vanadium	BRL	0.0100		mg/L	314227	1	04/27/2021 12:51	JM
Zinc	BRL	0.0200		mg/L	314227	1	04/27/2021 12:51	JM
Mercury, Total SW7470A								
Mercury	BRL	0.00020		mg/L	314302	1	04/27/2021 18:48	SK
ION SCAN SW9056A								
Chloride	4.8	1.0		mg/L	R453243	1	04/28/2021 16:56	IP
Sulfate	29	1.0		mg/L	R453243	1	04/28/2021 23:53	IP
HARDNESS SM2340 B								
Hardness, Calcium/Magnesium (As CaCO3)	205	1.00		mg/L CaCO3	314227	1	04/27/2021 12:51	JM
Cyanide SW9014								
Cyanide, Total	BRL	0.010		mg/L	314408	1	04/29/2021 11:06	CB
CHLORINATED PESTICIDES, TCL SW8081B								
4,4'-DDD	BRL	0.10		ug/L	314128	1	04/26/2021 22:05	UH
4,4'-DDE	BRL	0.10		ug/L	314128	1	04/26/2021 22:05	UH
4,4'-DDT	BRL	0.10		ug/L	314128	1	04/26/2021 22:05	UH
Aldrin	BRL	0.050		ug/L	314128	1	04/26/2021 22:05	UH
alpha-BHC	BRL	0.050		ug/L	314128	1	04/26/2021 22:05	UH

Qualifiers: * Value exceeds maximum contaminant level

E Estimated (value above quantitation range)

BRL Below reporting limit

S Spike Recovery outside limits due to matrix

H Holding times for preparation or analysis exceeded

Narr See case narrative

N Analyte not NELAC certified

F Analyzed in the lab which is a deviation from the method

B Analyte detected in the associated method blank

< Less than Result value

> Greater than Result value

J Estimated value detected below Reporting Limit

Client: Geo-Hydro Engineers, Inc.	Client Sample ID: OW-3
Project Name: Cedartown Formal Municipal landfill Monitoring	Collection Date: 4/21/2021 6:26:00 PM
Lab ID: 2104Q56-003	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
CHLORINATED PESTICIDES, TCL SW8081B								
alpha-Chlordane	BRL	0.050		ug/L	314128	1	04/26/2021 22:05	UH
beta-BHC	BRL	0.050		ug/L	314128	1	04/26/2021 22:05	UH
delta-BHC	BRL	0.050		ug/L	314128	1	04/26/2021 22:05	UH
Dieldrin	BRL	0.10		ug/L	314128	1	04/26/2021 22:05	UH
Endosulfan I	BRL	0.050		ug/L	314128	1	04/26/2021 22:05	UH
Endosulfan II	BRL	0.10		ug/L	314128	1	04/26/2021 22:05	UH
Endosulfan sulfate	BRL	0.10		ug/L	314128	1	04/26/2021 22:05	UH
Endrin	BRL	0.10		ug/L	314128	1	04/26/2021 22:05	UH
Endrin aldehyde	BRL	0.10		ug/L	314128	1	04/26/2021 22:05	UH
Endrin ketone	BRL	0.10		ug/L	314128	1	04/26/2021 22:05	UH
gamma-BHC	BRL	0.050		ug/L	314128	1	04/26/2021 22:05	UH
gamma-Chlordane	BRL	0.050		ug/L	314128	1	04/26/2021 22:05	UH
Heptachlor	BRL	0.050		ug/L	314128	1	04/26/2021 22:05	UH
Heptachlor epoxide	BRL	0.050		ug/L	314128	1	04/26/2021 22:05	UH
Methoxychlor	BRL	0.50		ug/L	314128	1	04/26/2021 22:05	UH
Toxaphene	BRL	5.0		ug/L	314128	1	04/26/2021 22:05	UH
Surr: Decachlorobiphenyl	54	22.9-130	%REC		314128	1	04/26/2021 22:05	UH
Surr: Tetrachloro-m-xylene	73.9	37.9-130	%REC		314128	1	04/26/2021 22:05	UH

Alkalinity by SM2320B

Alkalinity, Total (As CaCO ₃)	254	3.00	mg/L	R452903	1	04/27/2021 11:03	CB
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Qualifiers:	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
BRL	Below reporting limit	S Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr See case narrative
N	Analyte not NELAC certified	F Analyzed in the lab which is a deviation from the method
B	Analyte detected in the associated method blank	< Less than Result value
>	Greater than Result value	J Estimated value detected below Reporting Limit

Client: Geo-Hydro Engineers, Inc.	Client Sample ID: OW-4
Project Name: Cedartown Formal Municipal landfill Monitoring	Collection Date: 4/20/2021 4:06:00 PM
Lab ID: 2104Q56-004	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL-SEMOVOLATILE ORGANICS SW8270E		(SW3510C)						
1,1'-Biphenyl	BRL	10		ug/L	314156	1	04/28/2021 17:40	YH
2,4,5-Trichlorophenol	BRL	25		ug/L	314156	1	04/28/2021 17:40	YH
2,4,6-Trichlorophenol	BRL	10		ug/L	314156	1	04/28/2021 17:40	YH
2,4-Dichlorophenol	BRL	10		ug/L	314156	1	04/28/2021 17:40	YH
2,4-Dimethylphenol	BRL	10		ug/L	314156	1	04/28/2021 17:40	YH
2,4-Dinitrophenol	BRL	25		ug/L	314156	1	04/28/2021 17:40	YH
2,4-Dinitrotoluene	BRL	10		ug/L	314156	1	04/28/2021 17:40	YH
2,6-Dinitrotoluene	BRL	10		ug/L	314156	1	04/28/2021 17:40	YH
2-Chloronaphthalene	BRL	10		ug/L	314156	1	04/28/2021 17:40	YH
2-Chlorophenol	BRL	10		ug/L	314156	1	04/28/2021 17:40	YH
2-Methylnaphthalene	BRL	10		ug/L	314156	1	04/28/2021 17:40	YH
2-Methylphenol	BRL	10		ug/L	314156	1	04/28/2021 17:40	YH
2-Nitroaniline	BRL	25		ug/L	314156	1	04/28/2021 17:40	YH
2-Nitrophenol	BRL	10		ug/L	314156	1	04/28/2021 17:40	YH
3,3'-Dichlorobenzidine	BRL	10		ug/L	314156	1	04/28/2021 17:40	YH
3-Nitroaniline	BRL	25		ug/L	314156	1	04/28/2021 17:40	YH
4,6-Dinitro-2-methylphenol	BRL	25		ug/L	314156	1	04/28/2021 17:40	YH
4-Bromophenyl phenyl ether	BRL	10		ug/L	314156	1	04/28/2021 17:40	YH
4-Chloro-3-methylphenol	BRL	10		ug/L	314156	1	04/28/2021 17:40	YH
4-Chloroaniline	BRL	10		ug/L	314156	1	04/28/2021 17:40	YH
4-Chlorophenyl phenyl ether	BRL	10		ug/L	314156	1	04/28/2021 17:40	YH
4-Methylphenol	BRL	10		ug/L	314156	1	04/28/2021 17:40	YH
4-Nitroaniline	BRL	25		ug/L	314156	1	04/28/2021 17:40	YH
4-Nitrophenol	BRL	25		ug/L	314156	1	04/28/2021 17:40	YH
Acenaphthene	BRL	10		ug/L	314156	1	04/28/2021 17:40	YH
Acenaphthylene	BRL	10		ug/L	314156	1	04/28/2021 17:40	YH
Acetophenone	BRL	10		ug/L	314156	1	04/28/2021 17:40	YH
Anthracene	BRL	10		ug/L	314156	1	04/28/2021 17:40	YH
Atrazine	BRL	10		ug/L	314156	1	04/28/2021 17:40	YH
Benz(a)anthracene	BRL	10		ug/L	314156	1	04/28/2021 17:40	YH
Benzaldehyde	BRL	10		ug/L	314156	1	04/28/2021 17:40	YH
Benzo(a)pyrene	BRL	10		ug/L	314156	1	04/28/2021 17:40	YH
Benzo(b)fluoranthene	BRL	10		ug/L	314156	1	04/28/2021 17:40	YH
Benzo(g,h,i)perylene	BRL	10		ug/L	314156	1	04/28/2021 17:40	YH
Benzo(k)fluoranthene	BRL	10		ug/L	314156	1	04/28/2021 17:40	YH
Bis(2-chloroethoxy)methane	BRL	10		ug/L	314156	1	04/28/2021 17:40	YH
Bis(2-chloroethyl)ether	BRL	10		ug/L	314156	1	04/28/2021 17:40	YH
Bis(2-chloroisopropyl)ether	BRL	10		ug/L	314156	1	04/28/2021 17:40	YH
Bis(2-ethylhexyl)phthalate	BRL	10		ug/L	314156	1	04/28/2021 17:40	YH
Butyl benzyl phthalate	BRL	10		ug/L	314156	1	04/28/2021 17:40	YH
Caprolactam	BRL	10		ug/L	314156	1	04/28/2021 17:40	YH
Carbazole	BRL	10		ug/L	314156	1	04/28/2021 17:40	YH
Chrysene	BRL	10		ug/L	314156	1	04/28/2021 17:40	YH
Di-n-butyl phthalate	BRL	10		ug/L	314156	1	04/28/2021 17:40	YH
Di-n-octyl phthalate	BRL	10		ug/L	314156	1	04/28/2021 17:40	YH

Qualifiers: * Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

> Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative

F Analyzed in the lab which is a deviation from the method

< Less than Result value

J Estimated value detected below Reporting Limit

Client: Geo-Hydro Engineers, Inc.	Client Sample ID: OW-4
Project Name: Cedartown Formal Municipal landfill Monitoring	Collection Date: 4/20/2021 4:06:00 PM
Lab ID: 2104Q56-004	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL-SEMOVOLATILE ORGANICS SW8270E		(SW3510C)						
Dibenz(a,h)anthracene	BRL	10		ug/L	314156	1	04/28/2021 17:40	YH
Dibenzofuran	BRL	10		ug/L	314156	1	04/28/2021 17:40	YH
Diethyl phthalate	BRL	10		ug/L	314156	1	04/28/2021 17:40	YH
Dimethyl phthalate	BRL	10		ug/L	314156	1	04/28/2021 17:40	YH
Fluoranthene	BRL	10		ug/L	314156	1	04/28/2021 17:40	YH
Fluorene	BRL	10		ug/L	314156	1	04/28/2021 17:40	YH
Hexachlorobenzene	BRL	10		ug/L	314156	1	04/28/2021 17:40	YH
Hexachlorobutadiene	BRL	10		ug/L	314156	1	04/28/2021 17:40	YH
Hexachlorocyclopentadiene	BRL	10		ug/L	314156	1	04/28/2021 17:40	YH
Hexachloroethane	BRL	10		ug/L	314156	1	04/28/2021 17:40	YH
Indeno(1,2,3-cd)pyrene	BRL	10		ug/L	314156	1	04/28/2021 17:40	YH
Isophorone	BRL	10		ug/L	314156	1	04/28/2021 17:40	YH
N-Nitrosodi-n-propylamine	BRL	10		ug/L	314156	1	04/28/2021 17:40	YH
N-Nitrosodiphenylamine	BRL	10		ug/L	314156	1	04/28/2021 17:40	YH
Naphthalene	BRL	10		ug/L	314156	1	04/28/2021 17:40	YH
Nitrobenzene	BRL	10		ug/L	314156	1	04/28/2021 17:40	YH
Pentachlorophenol	BRL	25		ug/L	314156	1	04/28/2021 17:40	YH
Phenanthrene	BRL	10		ug/L	314156	1	04/28/2021 17:40	YH
Phenol	BRL	10		ug/L	314156	1	04/28/2021 17:40	YH
Pyrene	BRL	10		ug/L	314156	1	04/28/2021 17:40	YH
Surr: 2,4,6-Tribromophenol	63.4	47-127		%REC	314156	1	04/28/2021 17:40	YH
Surr: 2-Fluorobiphenyl	85.9	47.4-119		%REC	314156	1	04/28/2021 17:40	YH
Surr: 2-Fluorophenol	19.9	26.2-120	S	%REC	314156	1	04/28/2021 17:40	YH
Surr: 4-Terphenyl-d14	87.1	45-133		%REC	314156	1	04/28/2021 17:40	YH
Surr: Nitrobenzene-d5	75	41.9-121		%REC	314156	1	04/28/2021 17:40	YH
Surr: Phenol-d5	16.9	17.8-120	S	%REC	314156	1	04/28/2021 17:40	YH
TCL VOLATILE ORGANICS SW8260D		(SW5030B)						
1,1,1-Trichloroethane	BRL	5.0		ug/L	314284	1	04/27/2021 04:40	JT
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	314284	1	04/27/2021 04:40	JT
1,1,2-Trichloroethane	BRL	5.0		ug/L	314284	1	04/27/2021 04:40	JT
1,1-Dichloroethane	BRL	5.0		ug/L	314284	1	04/27/2021 04:40	JT
1,1-Dichloroethene	BRL	5.0		ug/L	314284	1	04/27/2021 04:40	JT
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	314284	1	04/27/2021 04:40	JT
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	314284	1	04/27/2021 04:40	JT
1,2-Dibromoethane	BRL	5.0		ug/L	314284	1	04/27/2021 04:40	JT
1,2-Dichlorobenzene	BRL	5.0		ug/L	314284	1	04/27/2021 04:40	JT
1,2-Dichloroethane	BRL	5.0		ug/L	314284	1	04/27/2021 04:40	JT
1,2-Dichloropropane	BRL	5.0		ug/L	314284	1	04/27/2021 04:40	JT
1,3-Dichlorobenzene	BRL	5.0		ug/L	314284	1	04/27/2021 04:40	JT
1,4-Dichlorobenzene	BRL	5.0		ug/L	314284	1	04/27/2021 04:40	JT
2-Butanone	BRL	50		ug/L	314284	1	04/27/2021 04:40	JT
2-Hexanone	BRL	10		ug/L	314284	1	04/27/2021 04:40	JT
4-Methyl-2-pentanone	BRL	10		ug/L	314284	1	04/27/2021 04:40	JT
Acetone	BRL	50		ug/L	314284	1	04/27/2021 04:40	JT

Qualifiers: * Value exceeds maximum contaminant level

E Estimated (value above quantitation range)

BRL Below reporting limit

S Spike Recovery outside limits due to matrix

H Holding times for preparation or analysis exceeded

Narr See case narrative

N Analyte not NELAC certified

F Analyzed in the lab which is a deviation from the method

B Analyte detected in the associated method blank

< Less than Result value

> Greater than Result value

J Estimated value detected below Reporting Limit

Client: Geo-Hydro Engineers, Inc.	Client Sample ID: OW-4
Project Name: Cedartown Formal Municipal landfill Monitoring	Collection Date: 4/20/2021 4:06:00 PM
Lab ID: 2104Q56-004	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260D		(SW5030B)						
Benzene	BRL	5.0		ug/L	314284	1	04/27/2021 04:40	JT
Bromodichloromethane	BRL	5.0		ug/L	314284	1	04/27/2021 04:40	JT
Bromoform	BRL	5.0		ug/L	314284	1	04/27/2021 04:40	JT
Bromomethane	BRL	5.0		ug/L	314284	1	04/27/2021 04:40	JT
Carbon disulfide	BRL	5.0		ug/L	314284	1	04/27/2021 04:40	JT
Carbon tetrachloride	BRL	5.0		ug/L	314284	1	04/27/2021 04:40	JT
Chlorobenzene	BRL	5.0		ug/L	314284	1	04/27/2021 04:40	JT
Chloroethane	BRL	10		ug/L	314284	1	04/27/2021 04:40	JT
Chloroform	BRL	5.0		ug/L	314284	1	04/27/2021 04:40	JT
Chloromethane	BRL	10		ug/L	314284	1	04/27/2021 04:40	JT
cis-1,2-Dichloroethene	BRL	5.0		ug/L	314284	1	04/27/2021 04:40	JT
cis-1,3-Dichloropropene	BRL	5.0		ug/L	314284	1	04/27/2021 04:40	JT
Cyclohexane	BRL	5.0		ug/L	314284	1	04/27/2021 04:40	JT
Dibromochloromethane	BRL	5.0		ug/L	314284	1	04/27/2021 04:40	JT
Dichlorodifluoromethane	BRL	10		ug/L	314284	1	04/27/2021 04:40	JT
Ethylbenzene	BRL	5.0		ug/L	314284	1	04/27/2021 04:40	JT
Freon-113	BRL	10		ug/L	314284	1	04/27/2021 04:40	JT
Isopropylbenzene	BRL	5.0		ug/L	314284	1	04/27/2021 04:40	JT
m,p-Xylene	BRL	5.0		ug/L	314284	1	04/27/2021 04:40	JT
Methyl acetate	BRL	5.0		ug/L	314284	1	04/27/2021 04:40	JT
Methyl tert-butyl ether	BRL	5.0		ug/L	314284	1	04/27/2021 04:40	JT
Methylcyclohexane	BRL	5.0		ug/L	314284	1	04/27/2021 04:40	JT
Methylene chloride	BRL	5.0		ug/L	314284	1	04/27/2021 04:40	JT
o-Xylene	BRL	5.0		ug/L	314284	1	04/27/2021 04:40	JT
Styrene	BRL	5.0		ug/L	314284	1	04/27/2021 04:40	JT
Tetrachloroethene	BRL	5.0		ug/L	314284	1	04/27/2021 04:40	JT
Toluene	BRL	5.0		ug/L	314284	1	04/27/2021 04:40	JT
trans-1,2-Dichloroethene	BRL	5.0		ug/L	314284	1	04/27/2021 04:40	JT
trans-1,3-Dichloropropene	BRL	5.0		ug/L	314284	1	04/27/2021 04:40	JT
Trichloroethene	BRL	5.0		ug/L	314284	1	04/27/2021 04:40	JT
Trichlorofluoromethane	BRL	5.0		ug/L	314284	1	04/27/2021 04:40	JT
Vinyl chloride	BRL	2.0		ug/L	314284	1	04/27/2021 04:40	JT
Surr: 4-Bromofluorobenzene	95.8	74.9-127	%REC		314284	1	04/27/2021 04:40	JT
Surr: Dibromofluoromethane	98.1	78.9-121	%REC		314284	1	04/27/2021 04:40	JT
Surr: Toluene-d8	96.7	81.5-120	%REC		314284	1	04/27/2021 04:40	JT
POLYCHLORINATED BIPHENYLS SW8082A		(SW3510C)						
Aroclor 1016	BRL	0.50		ug/L	314187	1	04/26/2021 22:16	UH
Aroclor 1221	BRL	0.50		ug/L	314187	1	04/26/2021 22:16	UH
Aroclor 1232	BRL	0.50		ug/L	314187	1	04/26/2021 22:16	UH
Aroclor 1242	BRL	0.50		ug/L	314187	1	04/26/2021 22:16	UH
Aroclor 1248	BRL	0.50		ug/L	314187	1	04/26/2021 22:16	UH
Aroclor 1254	BRL	0.50		ug/L	314187	1	04/26/2021 22:16	UH
Aroclor 1260	BRL	0.50		ug/L	314187	1	04/26/2021 22:16	UH
Surr: Decachlorobiphenyl	37.6	30-120	%REC		314187	1	04/26/2021 22:16	UH

Qualifiers: * Value exceeds maximum contaminant level

E Estimated (value above quantitation range)

BRL Below reporting limit

S Spike Recovery outside limits due to matrix

H Holding times for preparation or analysis exceeded

Narr See case narrative

N Analyte not NELAC certified

F Analyzed in the lab which is a deviation from the method

B Analyte detected in the associated method blank

< Less than Result value

> Greater than Result value

J Estimated value detected below Reporting Limit

Client: Geo-Hydro Engineers, Inc.	Client Sample ID: OW-4
Project Name: Cedartown Formal Municipal landfill Monitoring	Collection Date: 4/20/2021 4:06:00 PM
Lab ID: 2104Q56-004	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
POLYCHLORINATED BIPHENYLS SW8082A								
Surr: Tetrachloro-m-xylene	70.5	46.5-120		%REC	314187	1	04/26/2021 22:16	UH
METALS, TOTAL SW6010D								
Aluminum	BRL	0.200		mg/L	314227	1	04/27/2021 13:19	JM
Antimony	BRL	0.0200		mg/L	314227	1	04/27/2021 13:19	JM
Arsenic	BRL	0.0500		mg/L	314227	1	04/27/2021 13:19	JM
Barium	0.0202	0.0200		mg/L	314227	1	04/27/2021 13:19	JM
Beryllium	BRL	0.0100		mg/L	314227	1	04/27/2021 13:19	JM
Cadmium	BRL	0.0050		mg/L	314227	1	04/27/2021 13:19	JM
Calcium	68.5	0.100		mg/L	314227	1	04/27/2021 13:19	JM
Chromium	BRL	0.0100		mg/L	314227	1	04/27/2021 13:19	JM
Cobalt	BRL	0.0200		mg/L	314227	1	04/27/2021 13:19	JM
Copper	BRL	0.0100		mg/L	314227	1	04/27/2021 13:19	JM
Iron	13.3	0.100		mg/L	314227	1	04/27/2021 13:19	JM
Lead	BRL	0.0100		mg/L	314227	1	04/27/2021 13:19	JM
Magnesium	43.6	0.100		mg/L	314227	1	04/27/2021 13:19	JM
Manganese	1.02	0.0150		mg/L	314227	1	04/27/2021 13:19	JM
Nickel	BRL	0.0200		mg/L	314227	1	04/27/2021 13:19	JM
Potassium	7.20	0.500		mg/L	314227	1	04/27/2021 13:19	JM
Selenium	BRL	0.0200		mg/L	314227	1	04/27/2021 13:19	JM
Silver	BRL	0.0100		mg/L	314227	1	04/27/2021 13:19	JM
Sodium	168	1.00		mg/L	314227	1	04/27/2021 13:19	JM
Thallium	BRL	0.0200		mg/L	314227	1	04/27/2021 13:19	JM
Vanadium	BRL	0.0100		mg/L	314227	1	04/27/2021 13:19	JM
Zinc	BRL	0.0200		mg/L	314227	1	04/27/2021 13:19	JM
Mercury, Total SW7470A								
Mercury	BRL	0.00020		mg/L	314302	1	04/27/2021 18:51	SK
ION SCAN SW9056A								
Chloride	8.1	1.0		mg/L	R453243	1	04/28/2021 17:12	IP
Sulfate	670	20		mg/L	R453243	20	04/29/2021 00:09	IP
HARDNESS SM2340 B								
Hardness, Calcium/Magnesium (As CaCO3)	350	1.00		mg/L CaCO3	314227	1	04/27/2021 13:19	JM
Cyanide SW9014								
Cyanide, Total	BRL	0.010		mg/L	314408	1	04/29/2021 11:09	CB
CHLORINATED PESTICIDES, TCL SW8081B								
4,4'-DDD	BRL	0.10		ug/L	314128	1	04/26/2021 22:16	UH
4,4'-DDE	BRL	0.10		ug/L	314128	1	04/26/2021 22:16	UH
4,4'-DDT	BRL	0.10		ug/L	314128	1	04/26/2021 22:16	UH
Aldrin	BRL	0.050		ug/L	314128	1	04/26/2021 22:16	UH
alpha-BHC	BRL	0.050		ug/L	314128	1	04/26/2021 22:16	UH

Qualifiers: * Value exceeds maximum contaminant level

E Estimated (value above quantitation range)

BRL Below reporting limit

S Spike Recovery outside limits due to matrix

H Holding times for preparation or analysis exceeded

Narr See case narrative

N Analyte not NELAC certified

F Analyzed in the lab which is a deviation from the method

B Analyte detected in the associated method blank

< Less than Result value

> Greater than Result value

J Estimated value detected below Reporting Limit

Client: Geo-Hydro Engineers, Inc.	Client Sample ID: OW-4
Project Name: Cedartown Formal Municipal landfill Monitoring	Collection Date: 4/20/2021 4:06:00 PM
Lab ID: 2104Q56-004	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
CHLORINATED PESTICIDES, TCL SW8081B								
alpha-Chlordane	BRL	0.050		ug/L	314128	1	04/26/2021 22:16	UH
beta-BHC	BRL	0.050		ug/L	314128	1	04/26/2021 22:16	UH
delta-BHC	BRL	0.050		ug/L	314128	1	04/26/2021 22:16	UH
Dieldrin	BRL	0.10		ug/L	314128	1	04/26/2021 22:16	UH
Endosulfan I	BRL	0.050		ug/L	314128	1	04/26/2021 22:16	UH
Endosulfan II	BRL	0.10		ug/L	314128	1	04/26/2021 22:16	UH
Endosulfan sulfate	BRL	0.10		ug/L	314128	1	04/26/2021 22:16	UH
Endrin	BRL	0.10		ug/L	314128	1	04/26/2021 22:16	UH
Endrin aldehyde	BRL	0.10		ug/L	314128	1	04/26/2021 22:16	UH
Endrin ketone	BRL	0.10		ug/L	314128	1	04/26/2021 22:16	UH
gamma-BHC	BRL	0.050		ug/L	314128	1	04/26/2021 22:16	UH
gamma-Chlordane	BRL	0.050		ug/L	314128	1	04/26/2021 22:16	UH
Heptachlor	BRL	0.050		ug/L	314128	1	04/26/2021 22:16	UH
Heptachlor epoxide	BRL	0.050		ug/L	314128	1	04/26/2021 22:16	UH
Methoxychlor	BRL	0.50		ug/L	314128	1	04/26/2021 22:16	UH
Toxaphene	BRL	5.0		ug/L	314128	1	04/26/2021 22:16	UH
Surr: Decachlorobiphenyl	33	22.9-130	%REC		314128	1	04/26/2021 22:16	UH
Surr: Tetrachloro-m-xylene	56.2	37.9-130	%REC		314128	1	04/26/2021 22:16	UH

Alkalinity by SM2320B

Alkalinity, Total (As CaCO ₃)	160	3.00	mg/L	R452903	1	04/27/2021 11:03	CB
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Qualifiers:	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
BRL	Below reporting limit	S Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr See case narrative
N	Analyte not NELAC certified	F Analyzed in the lab which is a deviation from the method
B	Analyte detected in the associated method blank	< Less than Result value
>	Greater than Result value	J Estimated value detected below Reporting Limit

Client: Geo-Hydro Engineers, Inc.	Client Sample ID: OW-6B
Project Name: Cedartown Formal Municipal landfill Monitoring	Collection Date: 4/22/2021 4:15:00 PM
Lab ID: 2104Q56-005	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL-SEMOVOLATILE ORGANICS SW8270E		(SW3510C)						
1,1'-Biphenyl	BRL	10		ug/L	314156	1	04/28/2021 18:06	YH
2,4,5-Trichlorophenol	BRL	25		ug/L	314156	1	04/28/2021 18:06	YH
2,4,6-Trichlorophenol	BRL	10		ug/L	314156	1	04/28/2021 18:06	YH
2,4-Dichlorophenol	BRL	10		ug/L	314156	1	04/28/2021 18:06	YH
2,4-Dimethylphenol	BRL	10		ug/L	314156	1	04/28/2021 18:06	YH
2,4-Dinitrophenol	BRL	25		ug/L	314156	1	04/28/2021 18:06	YH
2,4-Dinitrotoluene	BRL	10		ug/L	314156	1	04/28/2021 18:06	YH
2,6-Dinitrotoluene	BRL	10		ug/L	314156	1	04/28/2021 18:06	YH
2-Chloronaphthalene	BRL	10		ug/L	314156	1	04/28/2021 18:06	YH
2-Chlorophenol	BRL	10		ug/L	314156	1	04/28/2021 18:06	YH
2-Methylnaphthalene	BRL	10		ug/L	314156	1	04/28/2021 18:06	YH
2-Methylphenol	BRL	10		ug/L	314156	1	04/28/2021 18:06	YH
2-Nitroaniline	BRL	25		ug/L	314156	1	04/28/2021 18:06	YH
2-Nitrophenol	BRL	10		ug/L	314156	1	04/28/2021 18:06	YH
3,3'-Dichlorobenzidine	BRL	10		ug/L	314156	1	04/28/2021 18:06	YH
3-Nitroaniline	BRL	25		ug/L	314156	1	04/28/2021 18:06	YH
4,6-Dinitro-2-methylphenol	BRL	25		ug/L	314156	1	04/28/2021 18:06	YH
4-Bromophenyl phenyl ether	BRL	10		ug/L	314156	1	04/28/2021 18:06	YH
4-Chloro-3-methylphenol	BRL	10		ug/L	314156	1	04/28/2021 18:06	YH
4-Chloroaniline	BRL	10		ug/L	314156	1	04/28/2021 18:06	YH
4-Chlorophenyl phenyl ether	BRL	10		ug/L	314156	1	04/28/2021 18:06	YH
4-Methylphenol	BRL	10		ug/L	314156	1	04/28/2021 18:06	YH
4-Nitroaniline	BRL	25		ug/L	314156	1	04/28/2021 18:06	YH
4-Nitrophenol	BRL	25		ug/L	314156	1	04/28/2021 18:06	YH
Acenaphthene	BRL	10		ug/L	314156	1	04/28/2021 18:06	YH
Acenaphthylene	BRL	10		ug/L	314156	1	04/28/2021 18:06	YH
Acetophenone	BRL	10		ug/L	314156	1	04/28/2021 18:06	YH
Anthracene	BRL	10		ug/L	314156	1	04/28/2021 18:06	YH
Atrazine	BRL	10		ug/L	314156	1	04/28/2021 18:06	YH
Benz(a)anthracene	BRL	10		ug/L	314156	1	04/28/2021 18:06	YH
Benzaldehyde	BRL	10		ug/L	314156	1	04/28/2021 18:06	YH
Benzo(a)pyrene	BRL	10		ug/L	314156	1	04/28/2021 18:06	YH
Benzo(b)fluoranthene	BRL	10		ug/L	314156	1	04/28/2021 18:06	YH
Benzo(g,h,i)perylene	BRL	10		ug/L	314156	1	04/28/2021 18:06	YH
Benzo(k)fluoranthene	BRL	10		ug/L	314156	1	04/28/2021 18:06	YH
Bis(2-chloroethoxy)methane	BRL	10		ug/L	314156	1	04/28/2021 18:06	YH
Bis(2-chloroethyl)ether	BRL	10		ug/L	314156	1	04/28/2021 18:06	YH
Bis(2-chloroisopropyl)ether	BRL	10		ug/L	314156	1	04/28/2021 18:06	YH
Bis(2-ethylhexyl)phthalate	BRL	10		ug/L	314156	1	04/28/2021 18:06	YH
Butyl benzyl phthalate	BRL	10		ug/L	314156	1	04/28/2021 18:06	YH
Caprolactam	BRL	10		ug/L	314156	1	04/28/2021 18:06	YH
Carbazole	BRL	10		ug/L	314156	1	04/28/2021 18:06	YH
Chrysene	BRL	10		ug/L	314156	1	04/28/2021 18:06	YH
Di-n-butyl phthalate	BRL	10		ug/L	314156	1	04/28/2021 18:06	YH
Di-n-octyl phthalate	BRL	10		ug/L	314156	1	04/28/2021 18:06	YH

Qualifiers: * Value exceeds maximum contaminant level

E Estimated (value above quantitation range)

BRL Below reporting limit

S Spike Recovery outside limits due to matrix

H Holding times for preparation or analysis exceeded

Narr See case narrative

N Analyte not NELAC certified

F Analyzed in the lab which is a deviation from the method

B Analyte detected in the associated method blank

< Less than Result value

> Greater than Result value

J Estimated value detected below Reporting Limit

Client: Geo-Hydro Engineers, Inc.	Client Sample ID: OW-6B
Project Name: Cedartown Formal Municipal landfill Monitoring	Collection Date: 4/22/2021 4:15:00 PM
Lab ID: 2104Q56-005	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL-SEMOVOLATILE ORGANICS SW8270E		(SW3510C)						
Dibenz(a,h)anthracene	BRL	10		ug/L	314156	1	04/28/2021 18:06	YH
Dibenzofuran	BRL	10		ug/L	314156	1	04/28/2021 18:06	YH
Diethyl phthalate	BRL	10		ug/L	314156	1	04/28/2021 18:06	YH
Dimethyl phthalate	BRL	10		ug/L	314156	1	04/28/2021 18:06	YH
Fluoranthene	BRL	10		ug/L	314156	1	04/28/2021 18:06	YH
Fluorene	BRL	10		ug/L	314156	1	04/28/2021 18:06	YH
Hexachlorobenzene	BRL	10		ug/L	314156	1	04/28/2021 18:06	YH
Hexachlorobutadiene	BRL	10		ug/L	314156	1	04/28/2021 18:06	YH
Hexachlorocyclopentadiene	BRL	10		ug/L	314156	1	04/28/2021 18:06	YH
Hexachloroethane	BRL	10		ug/L	314156	1	04/28/2021 18:06	YH
Indeno(1,2,3-cd)pyrene	BRL	10		ug/L	314156	1	04/28/2021 18:06	YH
Isophorone	BRL	10		ug/L	314156	1	04/28/2021 18:06	YH
N-Nitrosodi-n-propylamine	BRL	10		ug/L	314156	1	04/28/2021 18:06	YH
N-Nitrosodiphenylamine	BRL	10		ug/L	314156	1	04/28/2021 18:06	YH
Naphthalene	BRL	10		ug/L	314156	1	04/28/2021 18:06	YH
Nitrobenzene	BRL	10		ug/L	314156	1	04/28/2021 18:06	YH
Pentachlorophenol	BRL	25		ug/L	314156	1	04/28/2021 18:06	YH
Phenanthrene	BRL	10		ug/L	314156	1	04/28/2021 18:06	YH
Phenol	BRL	10		ug/L	314156	1	04/28/2021 18:06	YH
Pyrene	BRL	10		ug/L	314156	1	04/28/2021 18:06	YH
Surr: 2,4,6-Tribromophenol	72.9	47-127		%REC	314156	1	04/28/2021 18:06	YH
Surr: 2-Fluorobiphenyl	81.5	47.4-119		%REC	314156	1	04/28/2021 18:06	YH
Surr: 2-Fluorophenol	23	26.2-120	S	%REC	314156	1	04/28/2021 18:06	YH
Surr: 4-Terphenyl-d14	95.6	45-133		%REC	314156	1	04/28/2021 18:06	YH
Surr: Nitrobenzene-d5	69.2	41.9-121		%REC	314156	1	04/28/2021 18:06	YH
Surr: Phenol-d5	16.3	17.8-120	S	%REC	314156	1	04/28/2021 18:06	YH
TCL VOLATILE ORGANICS SW8260D		(SW5030B)						
1,1,1-Trichloroethane	BRL	5.0		ug/L	314345	1	04/27/2021 01:30	AV
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	314345	1	04/27/2021 01:30	AV
1,1,2-Trichloroethane	BRL	5.0		ug/L	314345	1	04/27/2021 01:30	AV
1,1-Dichloroethane	BRL	5.0		ug/L	314345	1	04/27/2021 01:30	AV
1,1-Dichloroethene	BRL	5.0		ug/L	314345	1	04/27/2021 01:30	AV
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	314345	1	04/27/2021 01:30	AV
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	314345	1	04/27/2021 01:30	AV
1,2-Dibromoethane	BRL	5.0		ug/L	314345	1	04/27/2021 01:30	AV
1,2-Dichlorobenzene	BRL	5.0		ug/L	314345	1	04/27/2021 01:30	AV
1,2-Dichloroethane	BRL	5.0		ug/L	314345	1	04/27/2021 01:30	AV
1,2-Dichloropropane	BRL	5.0		ug/L	314345	1	04/27/2021 01:30	AV
1,3-Dichlorobenzene	BRL	5.0		ug/L	314345	1	04/27/2021 01:30	AV
1,4-Dichlorobenzene	BRL	5.0		ug/L	314345	1	04/27/2021 01:30	AV
2-Butanone	BRL	50		ug/L	314345	1	04/27/2021 01:30	AV
2-Hexanone	BRL	10		ug/L	314345	1	04/27/2021 01:30	AV
4-Methyl-2-pentanone	BRL	10		ug/L	314345	1	04/27/2021 01:30	AV
Acetone	BRL	50		ug/L	314345	1	04/27/2021 01:30	AV

Qualifiers: * Value exceeds maximum contaminant level

E Estimated (value above quantitation range)

BRL Below reporting limit

S Spike Recovery outside limits due to matrix

H Holding times for preparation or analysis exceeded

Narr See case narrative

N Analyte not NELAC certified

F Analyzed in the lab which is a deviation from the method

B Analyte detected in the associated method blank

< Less than Result value

> Greater than Result value

J Estimated value detected below Reporting Limit

Client: Geo-Hydro Engineers, Inc.	Client Sample ID: OW-6B
Project Name: Cedartown Formal Municipal landfill Monitoring	Collection Date: 4/22/2021 4:15:00 PM
Lab ID: 2104Q56-005	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260D		(SW5030B)						
Benzene	BRL	5.0		ug/L	314345	1	04/27/2021 01:30	AV
Bromodichloromethane	BRL	5.0		ug/L	314345	1	04/27/2021 01:30	AV
Bromoform	BRL	5.0		ug/L	314345	1	04/27/2021 01:30	AV
Bromomethane	BRL	5.0		ug/L	314345	1	04/27/2021 01:30	AV
Carbon disulfide	BRL	5.0		ug/L	314345	1	04/27/2021 01:30	AV
Carbon tetrachloride	BRL	5.0		ug/L	314345	1	04/27/2021 01:30	AV
Chlorobenzene	BRL	5.0		ug/L	314345	1	04/27/2021 01:30	AV
Chloroethane	BRL	10		ug/L	314345	1	04/27/2021 01:30	AV
Chloroform	BRL	5.0		ug/L	314345	1	04/27/2021 01:30	AV
Chloromethane	BRL	10		ug/L	314345	1	04/27/2021 01:30	AV
cis-1,2-Dichloroethene	BRL	5.0		ug/L	314345	1	04/27/2021 01:30	AV
cis-1,3-Dichloropropene	BRL	5.0		ug/L	314345	1	04/27/2021 01:30	AV
Cyclohexane	BRL	5.0		ug/L	314345	1	04/27/2021 01:30	AV
Dibromochloromethane	BRL	5.0		ug/L	314345	1	04/27/2021 01:30	AV
Dichlorodifluoromethane	BRL	10		ug/L	314345	1	04/27/2021 01:30	AV
Ethylbenzene	BRL	5.0		ug/L	314345	1	04/27/2021 01:30	AV
Freon-113	BRL	10		ug/L	314345	1	04/27/2021 01:30	AV
Isopropylbenzene	BRL	5.0		ug/L	314345	1	04/27/2021 01:30	AV
m,p-Xylene	BRL	5.0		ug/L	314345	1	04/27/2021 01:30	AV
Methyl acetate	BRL	5.0		ug/L	314345	1	04/27/2021 01:30	AV
Methyl tert-butyl ether	BRL	5.0		ug/L	314345	1	04/27/2021 01:30	AV
Methylcyclohexane	BRL	5.0		ug/L	314345	1	04/27/2021 01:30	AV
Methylene chloride	BRL	5.0		ug/L	314345	1	04/27/2021 01:30	AV
o-Xylene	BRL	5.0		ug/L	314345	1	04/27/2021 01:30	AV
Styrene	BRL	5.0		ug/L	314345	1	04/27/2021 01:30	AV
Tetrachloroethene	BRL	5.0		ug/L	314345	1	04/27/2021 01:30	AV
Toluene	BRL	5.0		ug/L	314345	1	04/27/2021 01:30	AV
trans-1,2-Dichloroethene	BRL	5.0		ug/L	314345	1	04/27/2021 01:30	AV
trans-1,3-Dichloropropene	BRL	5.0		ug/L	314345	1	04/27/2021 01:30	AV
Trichloroethene	BRL	5.0		ug/L	314345	1	04/27/2021 01:30	AV
Trichlorofluoromethane	BRL	5.0		ug/L	314345	1	04/27/2021 01:30	AV
Vinyl chloride	BRL	2.0		ug/L	314345	1	04/27/2021 01:30	AV
Surr: 4-Bromofluorobenzene	92	74.9-127	%REC		314345	1	04/27/2021 01:30	AV
Surr: Dibromofluoromethane	88.9	78.9-121	%REC		314345	1	04/27/2021 01:30	AV
Surr: Toluene-d8	102	81.5-120	%REC		314345	1	04/27/2021 01:30	AV
POLYCHLORINATED BIPHENYLS SW8082A		(SW3510C)						
Aroclor 1016	BRL	0.50		ug/L	314368	1	04/28/2021 13:58	UH
Aroclor 1221	BRL	0.50		ug/L	314368	1	04/28/2021 13:58	UH
Aroclor 1232	BRL	0.50		ug/L	314368	1	04/28/2021 13:58	UH
Aroclor 1242	BRL	0.50		ug/L	314368	1	04/28/2021 13:58	UH
Aroclor 1248	BRL	0.50		ug/L	314368	1	04/28/2021 13:58	UH
Aroclor 1254	BRL	0.50		ug/L	314368	1	04/28/2021 13:58	UH
Aroclor 1260	BRL	0.50		ug/L	314368	1	04/28/2021 13:58	UH
Surr: Decachlorobiphenyl	65.4	30-120	%REC		314368	1	04/28/2021 13:58	UH

Qualifiers: * Value exceeds maximum contaminant level

E Estimated (value above quantitation range)

BRL Below reporting limit

S Spike Recovery outside limits due to matrix

H Holding times for preparation or analysis exceeded

Narr See case narrative

N Analyte not NELAC certified

F Analyzed in the lab which is a deviation from the method

B Analyte detected in the associated method blank

< Less than Result value

> Greater than Result value

J Estimated value detected below Reporting Limit

Client: Geo-Hydro Engineers, Inc.	Client Sample ID: OW-6B
Project Name: Cedartown Formal Municipal landfill Monitoring	Collection Date: 4/22/2021 4:15:00 PM
Lab ID: 2104Q56-005	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
POLYCHLORINATED BIPHENYLS SW8082A								
Surr: Tetrachloro-m-xylene	86.6	46.5-120	%REC	314368	1	04/28/2021 13:58	UH	
METALS, TOTAL SW6010D								
Aluminum	BRL	0.200	mg/L	314227	1	04/27/2021 13:23	JM	
Antimony	BRL	0.0200	mg/L	314227	1	04/27/2021 13:23	JM	
Arsenic	BRL	0.0500	mg/L	314227	1	04/27/2021 13:23	JM	
Barium	0.0397	0.0200	mg/L	314227	1	04/27/2021 13:23	JM	
Beryllium	BRL	0.0100	mg/L	314227	1	04/27/2021 13:23	JM	
Cadmium	BRL	0.0050	mg/L	314227	1	04/27/2021 13:23	JM	
Calcium	37.4	0.100	mg/L	314227	1	04/27/2021 13:23	JM	
Chromium	BRL	0.0100	mg/L	314227	1	04/27/2021 13:23	JM	
Cobalt	BRL	0.0200	mg/L	314227	1	04/27/2021 13:23	JM	
Copper	BRL	0.0100	mg/L	314227	1	04/27/2021 13:23	JM	
Iron	6.65	0.100	mg/L	314227	1	04/27/2021 13:23	JM	
Lead	BRL	0.0100	mg/L	314227	1	04/27/2021 13:23	JM	
Magnesium	20.5	0.100	mg/L	314227	1	04/27/2021 13:23	JM	
Manganese	0.518	0.0150	mg/L	314227	1	04/27/2021 13:23	JM	
Nickel	BRL	0.0200	mg/L	314227	1	04/27/2021 13:23	JM	
Potassium	1.43	0.500	mg/L	314227	1	04/27/2021 13:23	JM	
Selenium	BRL	0.0200	mg/L	314227	1	04/27/2021 13:23	JM	
Silver	BRL	0.0100	mg/L	314227	1	04/27/2021 13:23	JM	
Sodium	1.43	1.00	mg/L	314227	1	04/27/2021 13:23	JM	
Thallium	BRL	0.0200	mg/L	314227	1	04/27/2021 13:23	JM	
Vanadium	BRL	0.0100	mg/L	314227	1	04/27/2021 13:23	JM	
Zinc	BRL	0.0200	mg/L	314227	1	04/27/2021 13:23	JM	
Mercury, Total SW7470A								
Mercury	BRL	0.00020	mg/L	314302	1	04/27/2021 18:55	SK	
ION SCAN SW9056A								
Chloride	3.4	1.0	mg/L	R453243	1	04/28/2021 17:28	IP	
Sulfate	2.9	1.0	mg/L	R453243	1	04/29/2021 00:25	IP	
HARDNESS SM2340 B								
Hardness, Calcium/Magnesium (As CaCO3)	178	1.00	mg/L CaCO3	314227	1	04/27/2021 13:23	JM	
Cyanide SW9014								
Cyanide, Total	BRL	0.010	mg/L	314518	1	04/29/2021 17:13	CB	
CHLORINATED PESTICIDES, TCL SW8081B								
4,4'-DDD	BRL	0.10	ug/L	312722	1	04/28/2021 13:58	UH	
4,4'-DDE	BRL	0.10	ug/L	312722	1	04/28/2021 13:58	UH	
4,4'-DDT	BRL	0.10	ug/L	312722	1	04/28/2021 13:58	UH	
Aldrin	BRL	0.050	ug/L	312722	1	04/28/2021 13:58	UH	
alpha-BHC	BRL	0.050	ug/L	312722	1	04/28/2021 13:58	UH	

Qualifiers: * Value exceeds maximum contaminant level

E Estimated (value above quantitation range)

BRL Below reporting limit

S Spike Recovery outside limits due to matrix

H Holding times for preparation or analysis exceeded

Narr See case narrative

N Analyte not NELAC certified

F Analyzed in the lab which is a deviation from the method

B Analyte detected in the associated method blank

< Less than Result value

> Greater than Result value

J Estimated value detected below Reporting Limit

Client: Geo-Hydro Engineers, Inc.	Client Sample ID: OW-6B
Project Name: Cedartown Formal Municipal landfill Monitoring	Collection Date: 4/22/2021 4:15:00 PM
Lab ID: 2104Q56-005	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
CHLORINATED PESTICIDES, TCL SW8081B								
alpha-Chlordane	BRL	0.050		ug/L	312722	1	04/28/2021 13:58	UH
beta-BHC	BRL	0.050		ug/L	312722	1	04/28/2021 13:58	UH
delta-BHC	BRL	0.050		ug/L	312722	1	04/28/2021 13:58	UH
Dieldrin	BRL	0.10		ug/L	312722	1	04/28/2021 13:58	UH
Endosulfan I	BRL	0.050		ug/L	312722	1	04/28/2021 13:58	UH
Endosulfan II	BRL	0.10		ug/L	312722	1	04/28/2021 13:58	UH
Endosulfan sulfate	BRL	0.10		ug/L	312722	1	04/28/2021 13:58	UH
Endrin	BRL	0.10		ug/L	312722	1	04/28/2021 13:58	UH
Endrin aldehyde	BRL	0.10		ug/L	312722	1	04/28/2021 13:58	UH
Endrin ketone	BRL	0.10		ug/L	312722	1	04/28/2021 13:58	UH
gamma-BHC	BRL	0.050		ug/L	312722	1	04/28/2021 13:58	UH
gamma-Chlordane	BRL	0.050		ug/L	312722	1	04/28/2021 13:58	UH
Heptachlor	BRL	0.050		ug/L	312722	1	04/28/2021 13:58	UH
Heptachlor epoxide	BRL	0.050		ug/L	312722	1	04/28/2021 13:58	UH
Methoxychlor	BRL	0.50		ug/L	312722	1	04/28/2021 13:58	UH
Toxaphene	BRL	5.0		ug/L	312722	1	04/28/2021 13:58	UH
Surr: Decachlorobiphenyl	62.7	22.9-130		%REC	312722	1	04/28/2021 13:58	UH
Surr: Tetrachloro-m-xylene	82.9	37.9-130		%REC	312722	1	04/28/2021 13:58	UH

Alkalinity by SM2320B

Alkalinity, Total (As CaCO ₃)	199	3.00	mg/L	R452903	1	04/27/2021 11:03	CB
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Qualifiers:	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
BRL	Below reporting limit	S Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr See case narrative
N	Analyte not NELAC certified	F Analyzed in the lab which is a deviation from the method
B	Analyte detected in the associated method blank	< Less than Result value
>	Greater than Result value	J Estimated value detected below Reporting Limit

Client:	Geo-Hydro Engineers, Inc.	Client Sample ID:	SW-2
Project Name:	Cedartown Formal Municipal landfill Monitoring	Collection Date:	4/22/2021 3:20:00 PM
Lab ID:	2104Q56-006	Matrix:	Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL-SEMOVOLATILE ORGANICS SW8270E		(SW3510C)						
1,1'-Biphenyl	BRL	10		ug/L	314156	1	04/28/2021 18:32	YH
2,4,5-Trichlorophenol	BRL	25		ug/L	314156	1	04/28/2021 18:32	YH
2,4,6-Trichlorophenol	BRL	10		ug/L	314156	1	04/28/2021 18:32	YH
2,4-Dichlorophenol	BRL	10		ug/L	314156	1	04/28/2021 18:32	YH
2,4-Dimethylphenol	BRL	10		ug/L	314156	1	04/28/2021 18:32	YH
2,4-Dinitrophenol	BRL	25		ug/L	314156	1	04/28/2021 18:32	YH
2,4-Dinitrotoluene	BRL	10		ug/L	314156	1	04/28/2021 18:32	YH
2,6-Dinitrotoluene	BRL	10		ug/L	314156	1	04/28/2021 18:32	YH
2-Chloronaphthalene	BRL	10		ug/L	314156	1	04/28/2021 18:32	YH
2-Chlorophenol	BRL	10		ug/L	314156	1	04/28/2021 18:32	YH
2-Methylnaphthalene	BRL	10		ug/L	314156	1	04/28/2021 18:32	YH
2-Methylphenol	BRL	10		ug/L	314156	1	04/28/2021 18:32	YH
2-Nitroaniline	BRL	25		ug/L	314156	1	04/28/2021 18:32	YH
2-Nitrophenol	BRL	10		ug/L	314156	1	04/28/2021 18:32	YH
3,3'-Dichlorobenzidine	BRL	10		ug/L	314156	1	04/28/2021 18:32	YH
3-Nitroaniline	BRL	25		ug/L	314156	1	04/28/2021 18:32	YH
4,6-Dinitro-2-methylphenol	BRL	25		ug/L	314156	1	04/28/2021 18:32	YH
4-Bromophenyl phenyl ether	BRL	10		ug/L	314156	1	04/28/2021 18:32	YH
4-Chloro-3-methylphenol	BRL	10		ug/L	314156	1	04/28/2021 18:32	YH
4-Chloroaniline	BRL	10		ug/L	314156	1	04/28/2021 18:32	YH
4-Chlorophenyl phenyl ether	BRL	10		ug/L	314156	1	04/28/2021 18:32	YH
4-Methylphenol	BRL	10		ug/L	314156	1	04/28/2021 18:32	YH
4-Nitroaniline	BRL	25		ug/L	314156	1	04/28/2021 18:32	YH
4-Nitrophenol	BRL	25		ug/L	314156	1	04/28/2021 18:32	YH
Acenaphthene	BRL	10		ug/L	314156	1	04/28/2021 18:32	YH
Acenaphthylene	BRL	10		ug/L	314156	1	04/28/2021 18:32	YH
Acetophenone	BRL	10		ug/L	314156	1	04/28/2021 18:32	YH
Anthracene	BRL	10		ug/L	314156	1	04/28/2021 18:32	YH
Atrazine	BRL	10		ug/L	314156	1	04/28/2021 18:32	YH
Benz(a)anthracene	BRL	10		ug/L	314156	1	04/28/2021 18:32	YH
Benzaldehyde	BRL	10		ug/L	314156	1	04/28/2021 18:32	YH
Benzo(a)pyrene	BRL	10		ug/L	314156	1	04/28/2021 18:32	YH
Benzo(b)fluoranthene	BRL	10		ug/L	314156	1	04/28/2021 18:32	YH
Benzo(g,h,i)perylene	BRL	10		ug/L	314156	1	04/28/2021 18:32	YH
Benzo(k)fluoranthene	BRL	10		ug/L	314156	1	04/28/2021 18:32	YH
Bis(2-chloroethoxy)methane	BRL	10		ug/L	314156	1	04/28/2021 18:32	YH
Bis(2-chloroethyl)ether	BRL	10		ug/L	314156	1	04/28/2021 18:32	YH
Bis(2-chloroisopropyl)ether	BRL	10		ug/L	314156	1	04/28/2021 18:32	YH
Bis(2-ethylhexyl)phthalate	BRL	10		ug/L	314156	1	04/28/2021 18:32	YH
Butyl benzyl phthalate	BRL	10		ug/L	314156	1	04/28/2021 18:32	YH
Caprolactam	BRL	10		ug/L	314156	1	04/28/2021 18:32	YH
Carbazole	BRL	10		ug/L	314156	1	04/28/2021 18:32	YH
Chrysene	BRL	10		ug/L	314156	1	04/28/2021 18:32	YH
Di-n-butyl phthalate	BRL	10		ug/L	314156	1	04/28/2021 18:32	YH
Di-n-octyl phthalate	BRL	10		ug/L	314156	1	04/28/2021 18:32	YH

Qualifiers: * Value exceeds maximum contaminant level

E Estimated (value above quantitation range)

BRL Below reporting limit

S Spike Recovery outside limits due to matrix

H Holding times for preparation or analysis exceeded

Narr See case narrative

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< Less than Result value

> Greater than Result value

J Estimated value detected below Reporting Limit

Client:	Geo-Hydro Engineers, Inc.	Client Sample ID:	SW-2
Project Name:	Cedartown Formal Municipal landfill Monitoring	Collection Date:	4/22/2021 3:20:00 PM
Lab ID:	2104Q56-006	Matrix:	Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL-SEMOVOLATILE ORGANICS SW8270E		(SW3510C)						
Dibenz(a,h)anthracene	BRL	10		ug/L	314156	1	04/28/2021 18:32	YH
Dibenzofuran	BRL	10		ug/L	314156	1	04/28/2021 18:32	YH
Diethyl phthalate	BRL	10		ug/L	314156	1	04/28/2021 18:32	YH
Dimethyl phthalate	BRL	10		ug/L	314156	1	04/28/2021 18:32	YH
Fluoranthene	BRL	10		ug/L	314156	1	04/28/2021 18:32	YH
Fluorene	BRL	10		ug/L	314156	1	04/28/2021 18:32	YH
Hexachlorobenzene	BRL	10		ug/L	314156	1	04/28/2021 18:32	YH
Hexachlorobutadiene	BRL	10		ug/L	314156	1	04/28/2021 18:32	YH
Hexachlorocyclopentadiene	BRL	10		ug/L	314156	1	04/28/2021 18:32	YH
Hexachloroethane	BRL	10		ug/L	314156	1	04/28/2021 18:32	YH
Indeno(1,2,3-cd)pyrene	BRL	10		ug/L	314156	1	04/28/2021 18:32	YH
Isophorone	BRL	10		ug/L	314156	1	04/28/2021 18:32	YH
N-Nitrosodi-n-propylamine	BRL	10		ug/L	314156	1	04/28/2021 18:32	YH
N-Nitrosodiphenylamine	BRL	10		ug/L	314156	1	04/28/2021 18:32	YH
Naphthalene	BRL	10		ug/L	314156	1	04/28/2021 18:32	YH
Nitrobenzene	BRL	10		ug/L	314156	1	04/28/2021 18:32	YH
Pentachlorophenol	BRL	25		ug/L	314156	1	04/28/2021 18:32	YH
Phenanthrene	BRL	10		ug/L	314156	1	04/28/2021 18:32	YH
Phenol	BRL	10		ug/L	314156	1	04/28/2021 18:32	YH
Pyrene	BRL	10		ug/L	314156	1	04/28/2021 18:32	YH
Surr: 2,4,6-Tribromophenol	81.1	47-127		%REC	314156	1	04/28/2021 18:32	YH
Surr: 2-Fluorobiphenyl	84.4	47.4-119		%REC	314156	1	04/28/2021 18:32	YH
Surr: 2-Fluorophenol	27.9	26.2-120		%REC	314156	1	04/28/2021 18:32	YH
Surr: 4-Terphenyl-d14	92.8	45-133		%REC	314156	1	04/28/2021 18:32	YH
Surr: Nitrobenzene-d5	73	41.9-121		%REC	314156	1	04/28/2021 18:32	YH
Surr: Phenol-d5	13.4	17.8-120	S	%REC	314156	1	04/28/2021 18:32	YH
TCL VOLATILE ORGANICS SW8260D		(SW5030B)						
1,1,1-Trichloroethane	BRL	5.0		ug/L	314345	1	04/27/2021 00:22	AV
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	314345	1	04/27/2021 00:22	AV
1,1,2-Trichloroethane	BRL	5.0		ug/L	314345	1	04/27/2021 00:22	AV
1,1-Dichloroethane	BRL	5.0		ug/L	314345	1	04/27/2021 00:22	AV
1,1-Dichloroethene	BRL	5.0		ug/L	314345	1	04/27/2021 00:22	AV
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	314345	1	04/27/2021 00:22	AV
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	314345	1	04/27/2021 00:22	AV
1,2-Dibromoethane	BRL	5.0		ug/L	314345	1	04/27/2021 00:22	AV
1,2-Dichlorobenzene	BRL	5.0		ug/L	314345	1	04/27/2021 00:22	AV
1,2-Dichloroethane	BRL	5.0		ug/L	314345	1	04/27/2021 00:22	AV
1,2-Dichloropropane	BRL	5.0		ug/L	314345	1	04/27/2021 00:22	AV
1,3-Dichlorobenzene	BRL	5.0		ug/L	314345	1	04/27/2021 00:22	AV
1,4-Dichlorobenzene	BRL	5.0		ug/L	314345	1	04/27/2021 00:22	AV
2-Butanone	BRL	50		ug/L	314345	1	04/27/2021 00:22	AV
2-Hexanone	BRL	10		ug/L	314345	1	04/27/2021 00:22	AV
4-Methyl-2-pentanone	BRL	10		ug/L	314345	1	04/27/2021 00:22	AV
Acetone	BRL	50		ug/L	314345	1	04/27/2021 00:22	AV

Qualifiers: * Value exceeds maximum contaminant level

E Estimated (value above quantitation range)

BRL Below reporting limit

S Spike Recovery outside limits due to matrix

H Holding times for preparation or analysis exceeded

Narr See case narrative

N Analyte not NELAC certified

F Analyzed in the lab which is a deviation from the method

B Analyte detected in the associated method blank

< Less than Result value

> Greater than Result value

J Estimated value detected below Reporting Limit

Client: Geo-Hydro Engineers, Inc.	Client Sample ID: SW-2
Project Name: Cedartown Formal Municipal landfill Monitoring	Collection Date: 4/22/2021 3:20:00 PM
Lab ID: 2104Q56-006	Matrix: Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260D		(SW5030B)						
Benzene	BRL	5.0		ug/L	314345	1	04/27/2021 00:22	AV
Bromodichloromethane	BRL	5.0		ug/L	314345	1	04/27/2021 00:22	AV
Bromoform	BRL	5.0		ug/L	314345	1	04/27/2021 00:22	AV
Bromomethane	BRL	5.0		ug/L	314345	1	04/27/2021 00:22	AV
Carbon disulfide	BRL	5.0		ug/L	314345	1	04/27/2021 00:22	AV
Carbon tetrachloride	BRL	5.0		ug/L	314345	1	04/27/2021 00:22	AV
Chlorobenzene	BRL	5.0		ug/L	314345	1	04/27/2021 00:22	AV
Chloroethane	BRL	10		ug/L	314345	1	04/27/2021 00:22	AV
Chloroform	BRL	5.0		ug/L	314345	1	04/27/2021 00:22	AV
Chloromethane	BRL	10		ug/L	314345	1	04/27/2021 00:22	AV
cis-1,2-Dichloroethene	BRL	5.0		ug/L	314345	1	04/27/2021 00:22	AV
cis-1,3-Dichloropropene	BRL	5.0		ug/L	314345	1	04/27/2021 00:22	AV
Cyclohexane	BRL	5.0		ug/L	314345	1	04/27/2021 00:22	AV
Dibromochloromethane	BRL	5.0		ug/L	314345	1	04/27/2021 00:22	AV
Dichlorodifluoromethane	BRL	10		ug/L	314345	1	04/27/2021 00:22	AV
Ethylbenzene	BRL	5.0		ug/L	314345	1	04/27/2021 00:22	AV
Freon-113	BRL	10		ug/L	314345	1	04/27/2021 00:22	AV
Isopropylbenzene	BRL	5.0		ug/L	314345	1	04/27/2021 00:22	AV
m,p-Xylene	BRL	5.0		ug/L	314345	1	04/27/2021 00:22	AV
Methyl acetate	BRL	5.0		ug/L	314345	1	04/27/2021 00:22	AV
Methyl tert-butyl ether	BRL	5.0		ug/L	314345	1	04/27/2021 00:22	AV
Methylcyclohexane	BRL	5.0		ug/L	314345	1	04/27/2021 00:22	AV
Methylene chloride	BRL	5.0		ug/L	314345	1	04/27/2021 00:22	AV
o-Xylene	BRL	5.0		ug/L	314345	1	04/27/2021 00:22	AV
Styrene	BRL	5.0		ug/L	314345	1	04/27/2021 00:22	AV
Tetrachloroethene	BRL	5.0		ug/L	314345	1	04/27/2021 00:22	AV
Toluene	BRL	5.0		ug/L	314345	1	04/27/2021 00:22	AV
trans-1,2-Dichloroethene	BRL	5.0		ug/L	314345	1	04/27/2021 00:22	AV
trans-1,3-Dichloropropene	BRL	5.0		ug/L	314345	1	04/27/2021 00:22	AV
Trichloroethene	BRL	5.0		ug/L	314345	1	04/27/2021 00:22	AV
Trichlorofluoromethane	BRL	5.0		ug/L	314345	1	04/27/2021 00:22	AV
Vinyl chloride	BRL	2.0		ug/L	314345	1	04/27/2021 00:22	AV
Surr: 4-Bromofluorobenzene	95.3	74.9-127	%REC		314345	1	04/27/2021 00:22	AV
Surr: Dibromofluoromethane	86.8	78.9-121	%REC		314345	1	04/27/2021 00:22	AV
Surr: Toluene-d8	99.6	81.5-120	%REC		314345	1	04/27/2021 00:22	AV
POLYCHLORINATED BIPHENYLS SW8082A		(SW3510C)						
Aroclor 1016	BRL	0.50		ug/L	314368	1	04/28/2021 14:09	UH
Aroclor 1221	BRL	0.50		ug/L	314368	1	04/28/2021 14:09	UH
Aroclor 1232	BRL	0.50		ug/L	314368	1	04/28/2021 14:09	UH
Aroclor 1242	BRL	0.50		ug/L	314368	1	04/28/2021 14:09	UH
Aroclor 1248	BRL	0.50		ug/L	314368	1	04/28/2021 14:09	UH
Aroclor 1254	BRL	0.50		ug/L	314368	1	04/28/2021 14:09	UH
Aroclor 1260	BRL	0.50		ug/L	314368	1	04/28/2021 14:09	UH
Surr: Decachlorobiphenyl	77.5	30-120	%REC		314368	1	04/28/2021 14:09	UH

Qualifiers: * Value exceeds maximum contaminant level

E Estimated (value above quantitation range)

BRL Below reporting limit

S Spike Recovery outside limits due to matrix

H Holding times for preparation or analysis exceeded

Narr See case narrative

N Analyte not NELAC certified

F Analyzed in the lab which is a deviation from the method

B Analyte detected in the associated method blank

< Less than Result value

> Greater than Result value

J Estimated value detected below Reporting Limit

Client: Geo-Hydro Engineers, Inc.	Client Sample ID: SW-2
Project Name: Cedartown Formal Municipal landfill Monitoring	Collection Date: 4/22/2021 3:20:00 PM
Lab ID: 2104Q56-006	Matrix: Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
POLYCHLORINATED BIPHENYLS SW8082A								
Surr: Tetrachloro-m-xylene	84.2	46.5-120	%REC	314368	1	04/28/2021 14:09	UH	
METALS, TOTAL SW6010D								
Aluminum	BRL	0.200	mg/L	314227	1	04/27/2021 13:26	JM	
Antimony	BRL	0.0200	mg/L	314227	1	04/27/2021 13:26	JM	
Arsenic	BRL	0.0500	mg/L	314227	1	04/27/2021 13:26	JM	
Barium	BRL	0.0200	mg/L	314227	1	04/27/2021 13:26	JM	
Beryllium	BRL	0.0100	mg/L	314227	1	04/27/2021 13:26	JM	
Cadmium	BRL	0.0050	mg/L	314227	1	04/27/2021 13:26	JM	
Calcium	7.59	0.100	mg/L	314227	1	04/27/2021 13:26	JM	
Chromium	BRL	0.0100	mg/L	314227	1	04/27/2021 13:26	JM	
Cobalt	BRL	0.0200	mg/L	314227	1	04/27/2021 13:26	JM	
Copper	BRL	0.0100	mg/L	314227	1	04/27/2021 13:26	JM	
Iron	1.47	0.100	mg/L	314227	1	04/27/2021 13:26	JM	
Lead	BRL	0.0100	mg/L	314227	1	04/27/2021 13:26	JM	
Magnesium	1.12	0.100	mg/L	314227	1	04/27/2021 13:26	JM	
Manganese	0.148	0.0150	mg/L	314227	1	04/27/2021 13:26	JM	
Nickel	BRL	0.0200	mg/L	314227	1	04/27/2021 13:26	JM	
Potassium	1.93	0.500	mg/L	314227	1	04/27/2021 13:26	JM	
Selenium	BRL	0.0200	mg/L	314227	1	04/27/2021 13:26	JM	
Silver	BRL	0.0100	mg/L	314227	1	04/27/2021 13:26	JM	
Sodium	BRL	1.00	mg/L	314227	1	04/27/2021 13:26	JM	
Thallium	BRL	0.0200	mg/L	314227	1	04/27/2021 13:26	JM	
Vanadium	BRL	0.0100	mg/L	314227	1	04/27/2021 13:26	JM	
Zinc	BRL	0.0200	mg/L	314227	1	04/27/2021 13:26	JM	
Mercury, Total SW7470A								
Mercury	BRL	0.00020	mg/L	314302	1	04/27/2021 18:59	SK	
ION SCAN SW9056A								
Chloride	1.4	1.0	mg/L	R453243	1	04/29/2021 14:09	IP	
Sulfate	2.2	1.0	mg/L	R453243	1	04/29/2021 14:09	IP	
HARDNESS SM2340 B								
Hardness, Calcium/Magnesium (As CaCO3)	23.6	1.00	mg/L CaCO3	314227	1	04/27/2021 13:26	JM	
Cyanide SW9014								
Cyanide, Total	BRL	0.010	mg/L	314518	1	04/29/2021 17:16	CB	
CHLORINATED PESTICIDES, TCL SW8081B								
4,4'-DDD	BRL	0.10	ug/L	312722	1	04/28/2021 14:09	UH	
4,4'-DDE	BRL	0.10	ug/L	312722	1	04/28/2021 14:09	UH	
4,4'-DDT	BRL	0.10	ug/L	312722	1	04/28/2021 14:09	UH	
Aldrin	BRL	0.050	ug/L	312722	1	04/28/2021 14:09	UH	
alpha-BHC	BRL	0.050	ug/L	312722	1	04/28/2021 14:09	UH	

Qualifiers: * Value exceeds maximum contaminant level

E Estimated (value above quantitation range)

BRL Below reporting limit

S Spike Recovery outside limits due to matrix

H Holding times for preparation or analysis exceeded

Narr See case narrative

N Analyte not NELAC certified

F Analyzed in the lab which is a deviation from the method

B Analyte detected in the associated method blank

< Less than Result value

> Greater than Result value

J Estimated value detected below Reporting Limit

Client: Geo-Hydro Engineers, Inc.	Client Sample ID: SW-2
Project Name: Cedartown Formal Municipal landfill Monitoring	Collection Date: 4/22/2021 3:20:00 PM
Lab ID: 2104Q56-006	Matrix: Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
CHLORINATED PESTICIDES, TCL SW8081B								
alpha-Chlordane	BRL	0.050		ug/L	312722	1	04/28/2021 14:09	UH
beta-BHC	BRL	0.050		ug/L	312722	1	04/28/2021 14:09	UH
delta-BHC	BRL	0.050		ug/L	312722	1	04/28/2021 14:09	UH
Dieldrin	BRL	0.10		ug/L	312722	1	04/28/2021 14:09	UH
Endosulfan I	BRL	0.050		ug/L	312722	1	04/28/2021 14:09	UH
Endosulfan II	BRL	0.10		ug/L	312722	1	04/28/2021 14:09	UH
Endosulfan sulfate	BRL	0.10		ug/L	312722	1	04/28/2021 14:09	UH
Endrin	BRL	0.10		ug/L	312722	1	04/28/2021 14:09	UH
Endrin aldehyde	BRL	0.10		ug/L	312722	1	04/28/2021 14:09	UH
Endrin ketone	BRL	0.10		ug/L	312722	1	04/28/2021 14:09	UH
gamma-BHC	BRL	0.050		ug/L	312722	1	04/28/2021 14:09	UH
gamma-Chlordane	BRL	0.050		ug/L	312722	1	04/28/2021 14:09	UH
Heptachlor	BRL	0.050		ug/L	312722	1	04/28/2021 14:09	UH
Heptachlor epoxide	BRL	0.050		ug/L	312722	1	04/28/2021 14:09	UH
Methoxychlor	BRL	0.50		ug/L	312722	1	04/28/2021 14:09	UH
Toxaphene	BRL	5.0		ug/L	312722	1	04/28/2021 14:09	UH
Surr: Decachlorobiphenyl	74.6	22.9-130	%REC		312722	1	04/28/2021 14:09	UH
Surr: Tetrachloro-m-xylene	80.6	37.9-130	%REC		312722	1	04/28/2021 14:09	UH

Alkalinity by SM2320B

Alkalinity, Total (As CaCO ₃)	28.5	3.00	mg/L	R452903	1	04/27/2021 11:03	CB
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Qualifiers:	*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
	BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
	H	Holding times for preparation or analysis exceeded	Narr	See case narrative
	N	Analyte not NELAC certified	F	Analyzed in the lab which is a deviation from the method
	B	Analyte detected in the associated method blank	<	Less than Result value
	>	Greater than Result value	J	Estimated value detected below Reporting Limit

Client: Geo-Hydro Engineers, Inc.	Client Sample ID: SW-3
Project Name: Cedartown Formal Municipal landfill Monitoring	Collection Date: 4/20/2021 12:45:00 PM
Lab ID: 2104Q56-007	Matrix: Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL-SEMOVOLATILE ORGANICS SW8270E		(SW3510C)						
1,1'-Biphenyl	BRL	10		ug/L	314156	1	04/28/2021 18:58	YH
2,4,5-Trichlorophenol	BRL	25		ug/L	314156	1	04/28/2021 18:58	YH
2,4,6-Trichlorophenol	BRL	10		ug/L	314156	1	04/28/2021 18:58	YH
2,4-Dichlorophenol	BRL	10		ug/L	314156	1	04/28/2021 18:58	YH
2,4-Dimethylphenol	BRL	10		ug/L	314156	1	04/28/2021 18:58	YH
2,4-Dinitrophenol	BRL	25		ug/L	314156	1	04/28/2021 18:58	YH
2,4-Dinitrotoluene	BRL	10		ug/L	314156	1	04/28/2021 18:58	YH
2,6-Dinitrotoluene	BRL	10		ug/L	314156	1	04/28/2021 18:58	YH
2-Chloronaphthalene	BRL	10		ug/L	314156	1	04/28/2021 18:58	YH
2-Chlorophenol	BRL	10		ug/L	314156	1	04/28/2021 18:58	YH
2-Methylnaphthalene	BRL	10		ug/L	314156	1	04/28/2021 18:58	YH
2-Methylphenol	BRL	10		ug/L	314156	1	04/28/2021 18:58	YH
2-Nitroaniline	BRL	25		ug/L	314156	1	04/28/2021 18:58	YH
2-Nitrophenol	BRL	10		ug/L	314156	1	04/28/2021 18:58	YH
3,3'-Dichlorobenzidine	BRL	10		ug/L	314156	1	04/28/2021 18:58	YH
3-Nitroaniline	BRL	25		ug/L	314156	1	04/28/2021 18:58	YH
4,6-Dinitro-2-methylphenol	BRL	25		ug/L	314156	1	04/28/2021 18:58	YH
4-Bromophenyl phenyl ether	BRL	10		ug/L	314156	1	04/28/2021 18:58	YH
4-Chloro-3-methylphenol	BRL	10		ug/L	314156	1	04/28/2021 18:58	YH
4-Chloroaniline	BRL	10		ug/L	314156	1	04/28/2021 18:58	YH
4-Chlorophenyl phenyl ether	BRL	10		ug/L	314156	1	04/28/2021 18:58	YH
4-Methylphenol	BRL	10		ug/L	314156	1	04/28/2021 18:58	YH
4-Nitroaniline	BRL	25		ug/L	314156	1	04/28/2021 18:58	YH
4-Nitrophenol	BRL	25		ug/L	314156	1	04/28/2021 18:58	YH
Acenaphthene	BRL	10		ug/L	314156	1	04/28/2021 18:58	YH
Acenaphthylene	BRL	10		ug/L	314156	1	04/28/2021 18:58	YH
Acetophenone	BRL	10		ug/L	314156	1	04/28/2021 18:58	YH
Anthracene	BRL	10		ug/L	314156	1	04/28/2021 18:58	YH
Atrazine	BRL	10		ug/L	314156	1	04/28/2021 18:58	YH
Benz(a)anthracene	BRL	10		ug/L	314156	1	04/28/2021 18:58	YH
Benzaldehyde	BRL	10		ug/L	314156	1	04/28/2021 18:58	YH
Benzo(a)pyrene	BRL	10		ug/L	314156	1	04/28/2021 18:58	YH
Benzo(b)fluoranthene	BRL	10		ug/L	314156	1	04/28/2021 18:58	YH
Benzo(g,h,i)perylene	BRL	10		ug/L	314156	1	04/28/2021 18:58	YH
Benzo(k)fluoranthene	BRL	10		ug/L	314156	1	04/28/2021 18:58	YH
Bis(2-chloroethoxy)methane	BRL	10		ug/L	314156	1	04/28/2021 18:58	YH
Bis(2-chloroethyl)ether	BRL	10		ug/L	314156	1	04/28/2021 18:58	YH
Bis(2-chloroisopropyl)ether	BRL	10		ug/L	314156	1	04/28/2021 18:58	YH
Bis(2-ethylhexyl)phthalate	BRL	10		ug/L	314156	1	04/28/2021 18:58	YH
Butyl benzyl phthalate	BRL	10		ug/L	314156	1	04/28/2021 18:58	YH
Caprolactam	BRL	10		ug/L	314156	1	04/28/2021 18:58	YH
Carbazole	BRL	10		ug/L	314156	1	04/28/2021 18:58	YH
Chrysene	BRL	10		ug/L	314156	1	04/28/2021 18:58	YH
Di-n-butyl phthalate	BRL	10		ug/L	314156	1	04/28/2021 18:58	YH
Di-n-octyl phthalate	BRL	10		ug/L	314156	1	04/28/2021 18:58	YH

Qualifiers: * Value exceeds maximum contaminant level

E Estimated (value above quantitation range)

BRL Below reporting limit

S Spike Recovery outside limits due to matrix

H Holding times for preparation or analysis exceeded

Narr See case narrative

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F Analyzed in the lab which is a deviation from the method

B Analyte detected in the associated method blank

< Less than Result value

> Greater than Result value

J Estimated value detected below Reporting Limit

Client: Geo-Hydro Engineers, Inc.	Client Sample ID: SW-3
Project Name: Cedartown Formal Municipal landfill Monitoring	Collection Date: 4/20/2021 12:45:00 PM
Lab ID: 2104Q56-007	Matrix: Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL-SEMOVOLATILE ORGANICS SW8270E		(SW3510C)						
Dibenz(a,h)anthracene	BRL	10		ug/L	314156	1	04/28/2021 18:58	YH
Dibenzofuran	BRL	10		ug/L	314156	1	04/28/2021 18:58	YH
Diethyl phthalate	BRL	10		ug/L	314156	1	04/28/2021 18:58	YH
Dimethyl phthalate	BRL	10		ug/L	314156	1	04/28/2021 18:58	YH
Fluoranthene	BRL	10		ug/L	314156	1	04/28/2021 18:58	YH
Fluorene	BRL	10		ug/L	314156	1	04/28/2021 18:58	YH
Hexachlorobenzene	BRL	10		ug/L	314156	1	04/28/2021 18:58	YH
Hexachlorobutadiene	BRL	10		ug/L	314156	1	04/28/2021 18:58	YH
Hexachlorocyclopentadiene	BRL	10		ug/L	314156	1	04/28/2021 18:58	YH
Hexachloroethane	BRL	10		ug/L	314156	1	04/28/2021 18:58	YH
Indeno(1,2,3-cd)pyrene	BRL	10		ug/L	314156	1	04/28/2021 18:58	YH
Isophorone	BRL	10		ug/L	314156	1	04/28/2021 18:58	YH
N-Nitrosodi-n-propylamine	BRL	10		ug/L	314156	1	04/28/2021 18:58	YH
N-Nitrosodiphenylamine	BRL	10		ug/L	314156	1	04/28/2021 18:58	YH
Naphthalene	BRL	10		ug/L	314156	1	04/28/2021 18:58	YH
Nitrobenzene	BRL	10		ug/L	314156	1	04/28/2021 18:58	YH
Pentachlorophenol	BRL	25		ug/L	314156	1	04/28/2021 18:58	YH
Phenanthrene	BRL	10		ug/L	314156	1	04/28/2021 18:58	YH
Phenol	BRL	10		ug/L	314156	1	04/28/2021 18:58	YH
Pyrene	BRL	10		ug/L	314156	1	04/28/2021 18:58	YH
Surr: 2,4,6-Tribromophenol	79.7	47-127		%REC	314156	1	04/28/2021 18:58	YH
Surr: 2-Fluorobiphenyl	84.4	47.4-119		%REC	314156	1	04/28/2021 18:58	YH
Surr: 2-Fluorophenol	22.2	26.2-120	S	%REC	314156	1	04/28/2021 18:58	YH
Surr: 4-Terphenyl-d14	94.3	45-133		%REC	314156	1	04/28/2021 18:58	YH
Surr: Nitrobenzene-d5	67.1	41.9-121		%REC	314156	1	04/28/2021 18:58	YH
Surr: Phenol-d5	16	17.8-120	S	%REC	314156	1	04/28/2021 18:58	YH
TCL VOLATILE ORGANICS SW8260D		(SW5030B)						
1,1,1-Trichloroethane	BRL	5.0		ug/L	314345	1	04/27/2021 00:45	AV
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	314345	1	04/27/2021 00:45	AV
1,1,2-Trichloroethane	BRL	5.0		ug/L	314345	1	04/27/2021 00:45	AV
1,1-Dichloroethane	BRL	5.0		ug/L	314345	1	04/27/2021 00:45	AV
1,1-Dichloroethene	BRL	5.0		ug/L	314345	1	04/27/2021 00:45	AV
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	314345	1	04/27/2021 00:45	AV
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	314345	1	04/27/2021 00:45	AV
1,2-Dibromoethane	BRL	5.0		ug/L	314345	1	04/27/2021 00:45	AV
1,2-Dichlorobenzene	BRL	5.0		ug/L	314345	1	04/27/2021 00:45	AV
1,2-Dichloroethane	BRL	5.0		ug/L	314345	1	04/27/2021 00:45	AV
1,2-Dichloropropane	BRL	5.0		ug/L	314345	1	04/27/2021 00:45	AV
1,3-Dichlorobenzene	BRL	5.0		ug/L	314345	1	04/27/2021 00:45	AV
1,4-Dichlorobenzene	BRL	5.0		ug/L	314345	1	04/27/2021 00:45	AV
2-Butanone	BRL	50		ug/L	314345	1	04/27/2021 00:45	AV
2-Hexanone	BRL	10		ug/L	314345	1	04/27/2021 00:45	AV
4-Methyl-2-pentanone	BRL	10		ug/L	314345	1	04/27/2021 00:45	AV
Acetone	BRL	50		ug/L	314345	1	04/27/2021 00:45	AV

Qualifiers: * Value exceeds maximum contaminant level

E Estimated (value above quantitation range)

BRL Below reporting limit

S Spike Recovery outside limits due to matrix

H Holding times for preparation or analysis exceeded

Narr See case narrative

N Analyte not NELAC certified

F Analyzed in the lab which is a deviation from the method

B Analyte detected in the associated method blank

< Less than Result value

> Greater than Result value

J Estimated value detected below Reporting Limit

Client: Geo-Hydro Engineers, Inc.	Client Sample ID: SW-3
Project Name: Cedartown Formal Municipal landfill Monitoring	Collection Date: 4/20/2021 12:45:00 PM
Lab ID: 2104Q56-007	Matrix: Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260D		(SW5030B)						
Benzene	BRL	5.0		ug/L	314345	1	04/27/2021 00:45	AV
Bromodichloromethane	BRL	5.0		ug/L	314345	1	04/27/2021 00:45	AV
Bromoform	BRL	5.0		ug/L	314345	1	04/27/2021 00:45	AV
Bromomethane	BRL	5.0		ug/L	314345	1	04/27/2021 00:45	AV
Carbon disulfide	BRL	5.0		ug/L	314345	1	04/27/2021 00:45	AV
Carbon tetrachloride	BRL	5.0		ug/L	314345	1	04/27/2021 00:45	AV
Chlorobenzene	BRL	5.0		ug/L	314345	1	04/27/2021 00:45	AV
Chloroethane	BRL	10		ug/L	314345	1	04/27/2021 00:45	AV
Chloroform	BRL	5.0		ug/L	314345	1	04/27/2021 00:45	AV
Chloromethane	BRL	10		ug/L	314345	1	04/27/2021 00:45	AV
cis-1,2-Dichloroethene	BRL	5.0		ug/L	314345	1	04/27/2021 00:45	AV
cis-1,3-Dichloropropene	BRL	5.0		ug/L	314345	1	04/27/2021 00:45	AV
Cyclohexane	BRL	5.0		ug/L	314345	1	04/27/2021 00:45	AV
Dibromochloromethane	BRL	5.0		ug/L	314345	1	04/27/2021 00:45	AV
Dichlorodifluoromethane	BRL	10		ug/L	314345	1	04/27/2021 00:45	AV
Ethylbenzene	BRL	5.0		ug/L	314345	1	04/27/2021 00:45	AV
Freon-113	BRL	10		ug/L	314345	1	04/27/2021 00:45	AV
Isopropylbenzene	BRL	5.0		ug/L	314345	1	04/27/2021 00:45	AV
m,p-Xylene	BRL	5.0		ug/L	314345	1	04/27/2021 00:45	AV
Methyl acetate	BRL	5.0		ug/L	314345	1	04/27/2021 00:45	AV
Methyl tert-butyl ether	BRL	5.0		ug/L	314345	1	04/27/2021 00:45	AV
Methylcyclohexane	BRL	5.0		ug/L	314345	1	04/27/2021 00:45	AV
Methylene chloride	BRL	5.0		ug/L	314345	1	04/27/2021 00:45	AV
o-Xylene	BRL	5.0		ug/L	314345	1	04/27/2021 00:45	AV
Styrene	BRL	5.0		ug/L	314345	1	04/27/2021 00:45	AV
Tetrachloroethene	BRL	5.0		ug/L	314345	1	04/27/2021 00:45	AV
Toluene	BRL	5.0		ug/L	314345	1	04/27/2021 00:45	AV
trans-1,2-Dichloroethene	BRL	5.0		ug/L	314345	1	04/27/2021 00:45	AV
trans-1,3-Dichloropropene	BRL	5.0		ug/L	314345	1	04/27/2021 00:45	AV
Trichloroethene	BRL	5.0		ug/L	314345	1	04/27/2021 00:45	AV
Trichlorofluoromethane	BRL	5.0		ug/L	314345	1	04/27/2021 00:45	AV
Vinyl chloride	BRL	2.0		ug/L	314345	1	04/27/2021 00:45	AV
Surr: 4-Bromofluorobenzene	94.9	74.9-127	%REC		314345	1	04/27/2021 00:45	AV
Surr: Dibromofluoromethane	86.3	78.9-121	%REC		314345	1	04/27/2021 00:45	AV
Surr: Toluene-d8	102	81.5-120	%REC		314345	1	04/27/2021 00:45	AV
POLYCHLORINATED BIPHENYLS SW8082A		(SW3510C)						
Aroclor 1016	BRL	0.50		ug/L	314187	1	04/26/2021 22:27	UH
Aroclor 1221	BRL	0.50		ug/L	314187	1	04/26/2021 22:27	UH
Aroclor 1232	BRL	0.50		ug/L	314187	1	04/26/2021 22:27	UH
Aroclor 1242	BRL	0.50		ug/L	314187	1	04/26/2021 22:27	UH
Aroclor 1248	BRL	0.50		ug/L	314187	1	04/26/2021 22:27	UH
Aroclor 1254	BRL	0.50		ug/L	314187	1	04/26/2021 22:27	UH
Aroclor 1260	BRL	0.50		ug/L	314187	1	04/26/2021 22:27	UH
Surr: Decachlorobiphenyl	52	30-120	%REC		314187	1	04/26/2021 22:27	UH

Qualifiers: * Value exceeds maximum contaminant level

E Estimated (value above quantitation range)

BRL Below reporting limit

S Spike Recovery outside limits due to matrix

H Holding times for preparation or analysis exceeded

Narr See case narrative

N Analyte not NELAC certified

F Analyzed in the lab which is a deviation from the method

B Analyte detected in the associated method blank

< Less than Result value

> Greater than Result value

J Estimated value detected below Reporting Limit

Client: Geo-Hydro Engineers, Inc.	Client Sample ID: SW-3
Project Name: Cedartown Formal Municipal landfill Monitoring	Collection Date: 4/20/2021 12:45:00 PM
Lab ID: 2104Q56-007	Matrix: Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
POLYCHLORINATED BIPHENYLS SW8082A								
Surr: Tetrachloro-m-xylene	77	46.5-120		%REC	314187	1	04/26/2021 22:27	UH
METALS, TOTAL SW6010D								
Aluminum	BRL	0.200		mg/L	314227	1	04/27/2021 13:29	JM
Antimony	BRL	0.0200		mg/L	314227	1	04/27/2021 13:29	JM
Arsenic	BRL	0.0500		mg/L	314227	1	04/27/2021 13:29	JM
Barium	0.241	0.0200		mg/L	314227	1	04/27/2021 13:29	JM
Beryllium	BRL	0.0100		mg/L	314227	1	04/27/2021 13:29	JM
Cadmium	BRL	0.0050		mg/L	314227	1	04/27/2021 13:29	JM
Calcium	35.5	0.100		mg/L	314227	1	04/27/2021 13:29	JM
Chromium	BRL	0.0100		mg/L	314227	1	04/27/2021 13:29	JM
Cobalt	0.0307	0.0200		mg/L	314227	1	04/27/2021 13:29	JM
Copper	BRL	0.0100		mg/L	314227	1	04/27/2021 13:29	JM
Iron	11.7	0.100		mg/L	314227	1	04/27/2021 13:29	JM
Lead	BRL	0.0100		mg/L	314227	1	04/27/2021 13:29	JM
Magnesium	6.05	0.100		mg/L	314227	1	04/27/2021 13:29	JM
Manganese	5.63	0.0150		mg/L	314227	1	04/27/2021 13:29	JM
Nickel	0.0206	0.0200		mg/L	314227	1	04/27/2021 13:29	JM
Potassium	3.61	0.500		mg/L	314227	1	04/27/2021 13:29	JM
Selenium	BRL	0.0200		mg/L	314227	1	04/27/2021 13:29	JM
Silver	BRL	0.0100		mg/L	314227	1	04/27/2021 13:29	JM
Sodium	4.33	1.00		mg/L	314227	1	04/27/2021 13:29	JM
Thallium	BRL	0.0200		mg/L	314227	1	04/27/2021 13:29	JM
Vanadium	BRL	0.0100		mg/L	314227	1	04/27/2021 13:29	JM
Zinc	BRL	0.0200		mg/L	314227	1	04/27/2021 13:29	JM
Mercury, Total SW7470A								
Mercury	BRL	0.00020		mg/L	314302	1	04/27/2021 19:03	SK
ION SCAN SW9056A								
Chloride	3.1	1.0		mg/L	R453243	1	04/28/2021 17:44	IP
Sulfate	3.8	1.0		mg/L	R453243	1	04/28/2021 17:44	IP
HARDNESS SM2340 B								
Hardness, Calcium/Magnesium (As CaCO3)	114	1.00		mg/L CaCO3	314227	1	04/27/2021 13:29	JM
Cyanide SW9014								
Cyanide, Total	BRL	0.010		mg/L	314518	1	04/29/2021 17:17	CB
CHLORINATED PESTICIDES, TCL SW8081B								
4,4'-DDD	BRL	0.10		ug/L	314128	1	04/26/2021 22:27	UH
4,4'-DDE	BRL	0.10		ug/L	314128	1	04/26/2021 22:27	UH
4,4'-DDT	BRL	0.10		ug/L	314128	1	04/26/2021 22:27	UH
Aldrin	BRL	0.050		ug/L	314128	1	04/26/2021 22:27	UH
alpha-BHC	BRL	0.050		ug/L	314128	1	04/26/2021 22:27	UH

Qualifiers: * Value exceeds maximum contaminant level

E Estimated (value above quantitation range)

BRL Below reporting limit

S Spike Recovery outside limits due to matrix

H Holding times for preparation or analysis exceeded

Narr See case narrative

N Analyte not NELAC certified

F Analyzed in the lab which is a deviation from the method

B Analyte detected in the associated method blank

< Less than Result value

> Greater than Result value

J Estimated value detected below Reporting Limit

Client: Geo-Hydro Engineers, Inc.	Client Sample ID: SW-3
Project Name: Cedartown Formal Municipal landfill Monitoring	Collection Date: 4/20/2021 12:45:00 PM
Lab ID: 2104Q56-007	Matrix: Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
CHLORINATED PESTICIDES, TCL SW8081B								
alpha-Chlordane	BRL	0.050		ug/L	314128	1	04/26/2021 22:27	UH
beta-BHC	BRL	0.050		ug/L	314128	1	04/26/2021 22:27	UH
delta-BHC	BRL	0.050		ug/L	314128	1	04/26/2021 22:27	UH
Dieldrin	BRL	0.10		ug/L	314128	1	04/26/2021 22:27	UH
Endosulfan I	BRL	0.050		ug/L	314128	1	04/26/2021 22:27	UH
Endosulfan II	BRL	0.10		ug/L	314128	1	04/26/2021 22:27	UH
Endosulfan sulfate	BRL	0.10		ug/L	314128	1	04/26/2021 22:27	UH
Endrin	BRL	0.10		ug/L	314128	1	04/26/2021 22:27	UH
Endrin aldehyde	BRL	0.10		ug/L	314128	1	04/26/2021 22:27	UH
Endrin ketone	BRL	0.10		ug/L	314128	1	04/26/2021 22:27	UH
gamma-BHC	BRL	0.050		ug/L	314128	1	04/26/2021 22:27	UH
gamma-Chlordane	BRL	0.050		ug/L	314128	1	04/26/2021 22:27	UH
Heptachlor	BRL	0.050		ug/L	314128	1	04/26/2021 22:27	UH
Heptachlor epoxide	BRL	0.050		ug/L	314128	1	04/26/2021 22:27	UH
Methoxychlor	BRL	0.50		ug/L	314128	1	04/26/2021 22:27	UH
Toxaphene	BRL	5.0		ug/L	314128	1	04/26/2021 22:27	UH
Surr: Decachlorobiphenyl	49.8	22.9-130		%REC	314128	1	04/26/2021 22:27	UH
Surr: Tetrachloro-m-xylene	73.4	37.9-130		%REC	314128	1	04/26/2021 22:27	UH

Alkalinity by SM2320B

Alkalinity, Total (As CaCO ₃)	151	3.00	mg/L	R452903	1	04/27/2021 11:03	CB
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Qualifiers:	*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
	BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
	H	Holding times for preparation or analysis exceeded	Narr	See case narrative
	N	Analyte not NELAC certified	F	Analyzed in the lab which is a deviation from the method
	B	Analyte detected in the associated method blank	<	Less than Result value
	>	Greater than Result value	J	Estimated value detected below Reporting Limit

Client:	Geo-Hydro Engineers, Inc.	Client Sample ID:	FD-1
Project Name:	Cedartown Formal Municipal landfill Monitoring	Collection Date:	4/20/2021
Lab ID:	2104Q56-008	Matrix:	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL-SEMOVOLATILE ORGANICS SW8270E		(SW3510C)						
1,1'-Biphenyl	BRL	10		ug/L	314156	1	04/28/2021 19:25	YH
2,4,5-Trichlorophenol	BRL	25		ug/L	314156	1	04/28/2021 19:25	YH
2,4,6-Trichlorophenol	BRL	10		ug/L	314156	1	04/28/2021 19:25	YH
2,4-Dichlorophenol	BRL	10		ug/L	314156	1	04/28/2021 19:25	YH
2,4-Dimethylphenol	BRL	10		ug/L	314156	1	04/28/2021 19:25	YH
2,4-Dinitrophenol	BRL	25		ug/L	314156	1	04/28/2021 19:25	YH
2,4-Dinitrotoluene	BRL	10		ug/L	314156	1	04/28/2021 19:25	YH
2,6-Dinitrotoluene	BRL	10		ug/L	314156	1	04/28/2021 19:25	YH
2-Chloronaphthalene	BRL	10		ug/L	314156	1	04/28/2021 19:25	YH
2-Chlorophenol	BRL	10		ug/L	314156	1	04/28/2021 19:25	YH
2-Methylnaphthalene	BRL	10		ug/L	314156	1	04/28/2021 19:25	YH
2-Methylphenol	BRL	10		ug/L	314156	1	04/28/2021 19:25	YH
2-Nitroaniline	BRL	25		ug/L	314156	1	04/28/2021 19:25	YH
2-Nitrophenol	BRL	10		ug/L	314156	1	04/28/2021 19:25	YH
3,3'-Dichlorobenzidine	BRL	10		ug/L	314156	1	04/28/2021 19:25	YH
3-Nitroaniline	BRL	25		ug/L	314156	1	04/28/2021 19:25	YH
4,6-Dinitro-2-methylphenol	BRL	25		ug/L	314156	1	04/28/2021 19:25	YH
4-Bromophenyl phenyl ether	BRL	10		ug/L	314156	1	04/28/2021 19:25	YH
4-Chloro-3-methylphenol	BRL	10		ug/L	314156	1	04/28/2021 19:25	YH
4-Chloroaniline	BRL	10		ug/L	314156	1	04/28/2021 19:25	YH
4-Chlorophenyl phenyl ether	BRL	10		ug/L	314156	1	04/28/2021 19:25	YH
4-Methylphenol	BRL	10		ug/L	314156	1	04/28/2021 19:25	YH
4-Nitroaniline	BRL	25		ug/L	314156	1	04/28/2021 19:25	YH
4-Nitrophenol	BRL	25		ug/L	314156	1	04/28/2021 19:25	YH
Acenaphthene	BRL	10		ug/L	314156	1	04/28/2021 19:25	YH
Acenaphthylene	BRL	10		ug/L	314156	1	04/28/2021 19:25	YH
Acetophenone	BRL	10		ug/L	314156	1	04/28/2021 19:25	YH
Anthracene	BRL	10		ug/L	314156	1	04/28/2021 19:25	YH
Atrazine	BRL	10		ug/L	314156	1	04/28/2021 19:25	YH
Benz(a)anthracene	BRL	10		ug/L	314156	1	04/28/2021 19:25	YH
Benzaldehyde	BRL	10		ug/L	314156	1	04/28/2021 19:25	YH
Benzo(a)pyrene	BRL	10		ug/L	314156	1	04/28/2021 19:25	YH
Benzo(b)fluoranthene	BRL	10		ug/L	314156	1	04/28/2021 19:25	YH
Benzo(g,h,i)perylene	BRL	10		ug/L	314156	1	04/28/2021 19:25	YH
Benzo(k)fluoranthene	BRL	10		ug/L	314156	1	04/28/2021 19:25	YH
Bis(2-chloroethoxy)methane	BRL	10		ug/L	314156	1	04/28/2021 19:25	YH
Bis(2-chloroethyl)ether	BRL	10		ug/L	314156	1	04/28/2021 19:25	YH
Bis(2-chloroisopropyl)ether	BRL	10		ug/L	314156	1	04/28/2021 19:25	YH
Bis(2-ethylhexyl)phthalate	BRL	10		ug/L	314156	1	04/28/2021 19:25	YH
Butyl benzyl phthalate	BRL	10		ug/L	314156	1	04/28/2021 19:25	YH
Caprolactam	BRL	10		ug/L	314156	1	04/28/2021 19:25	YH
Carbazole	BRL	10		ug/L	314156	1	04/28/2021 19:25	YH
Chrysene	BRL	10		ug/L	314156	1	04/28/2021 19:25	YH
Di-n-butyl phthalate	BRL	10		ug/L	314156	1	04/28/2021 19:25	YH
Di-n-octyl phthalate	BRL	10		ug/L	314156	1	04/28/2021 19:25	YH

Qualifiers: * Value exceeds maximum contaminant level

E Estimated (value above quantitation range)

BRL Below reporting limit

S Spike Recovery outside limits due to matrix

H Holding times for preparation or analysis exceeded

Narr See case narrative

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< Less than Result value

> Greater than Result value

J Estimated value detected below Reporting Limit

Client:	Geo-Hydro Engineers, Inc.	Client Sample ID:	FD-1
Project Name:	Cedartown Formal Municipal landfill Monitoring	Collection Date:	4/20/2021
Lab ID:	2104Q56-008	Matrix:	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL-SEMOVOLATILE ORGANICS SW8270E		(SW3510C)						
Dibenz(a,h)anthracene	BRL	10		ug/L	314156	1	04/28/2021 19:25	YH
Dibenzofuran	BRL	10		ug/L	314156	1	04/28/2021 19:25	YH
Diethyl phthalate	BRL	10		ug/L	314156	1	04/28/2021 19:25	YH
Dimethyl phthalate	BRL	10		ug/L	314156	1	04/28/2021 19:25	YH
Fluoranthene	BRL	10		ug/L	314156	1	04/28/2021 19:25	YH
Fluorene	BRL	10		ug/L	314156	1	04/28/2021 19:25	YH
Hexachlorobenzene	BRL	10		ug/L	314156	1	04/28/2021 19:25	YH
Hexachlorobutadiene	BRL	10		ug/L	314156	1	04/28/2021 19:25	YH
Hexachlorocyclopentadiene	BRL	10		ug/L	314156	1	04/28/2021 19:25	YH
Hexachloroethane	BRL	10		ug/L	314156	1	04/28/2021 19:25	YH
Indeno(1,2,3-cd)pyrene	BRL	10		ug/L	314156	1	04/28/2021 19:25	YH
Isophorone	BRL	10		ug/L	314156	1	04/28/2021 19:25	YH
N-Nitrosodi-n-propylamine	BRL	10		ug/L	314156	1	04/28/2021 19:25	YH
N-Nitrosodiphenylamine	BRL	10		ug/L	314156	1	04/28/2021 19:25	YH
Naphthalene	BRL	10		ug/L	314156	1	04/28/2021 19:25	YH
Nitrobenzene	BRL	10		ug/L	314156	1	04/28/2021 19:25	YH
Pentachlorophenol	BRL	25		ug/L	314156	1	04/28/2021 19:25	YH
Phenanthrene	BRL	10		ug/L	314156	1	04/28/2021 19:25	YH
Phenol	BRL	10		ug/L	314156	1	04/28/2021 19:25	YH
Pyrene	BRL	10		ug/L	314156	1	04/28/2021 19:25	YH
Surr: 2,4,6-Tribromophenol	29.9	47-127	S	%REC	314156	1	04/28/2021 19:25	YH
Surr: 2-Fluorobiphenyl	75.3	47.4-119		%REC	314156	1	04/28/2021 19:25	YH
Surr: 2-Fluorophenol	8.55	26.2-120	S	%REC	314156	1	04/28/2021 19:25	YH
Surr: 4-Terphenyl-d14	84	45-133		%REC	314156	1	04/28/2021 19:25	YH
Surr: Nitrobenzene-d5	64.7	41.9-121		%REC	314156	1	04/28/2021 19:25	YH
Surr: Phenol-d5	5.37	17.8-120	S	%REC	314156	1	04/28/2021 19:25	YH
TCL VOLATILE ORGANICS SW8260D		(SW5030B)						
1,1,1-Trichloroethane	BRL	5.0		ug/L	314345	1	04/27/2021 01:07	AV
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	314345	1	04/27/2021 01:07	AV
1,1,2-Trichloroethane	BRL	5.0		ug/L	314345	1	04/27/2021 01:07	AV
1,1-Dichloroethane	BRL	5.0		ug/L	314345	1	04/27/2021 01:07	AV
1,1-Dichloroethene	BRL	5.0		ug/L	314345	1	04/27/2021 01:07	AV
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	314345	1	04/27/2021 01:07	AV
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	314345	1	04/27/2021 01:07	AV
1,2-Dibromoethane	BRL	5.0		ug/L	314345	1	04/27/2021 01:07	AV
1,2-Dichlorobenzene	BRL	5.0		ug/L	314345	1	04/27/2021 01:07	AV
1,2-Dichloroethane	BRL	5.0		ug/L	314345	1	04/27/2021 01:07	AV
1,2-Dichloropropane	BRL	5.0		ug/L	314345	1	04/27/2021 01:07	AV
1,3-Dichlorobenzene	BRL	5.0		ug/L	314345	1	04/27/2021 01:07	AV
1,4-Dichlorobenzene	BRL	5.0		ug/L	314345	1	04/27/2021 01:07	AV
2-Butanone	BRL	50		ug/L	314345	1	04/27/2021 01:07	AV
2-Hexanone	BRL	10		ug/L	314345	1	04/27/2021 01:07	AV
4-Methyl-2-pentanone	BRL	10		ug/L	314345	1	04/27/2021 01:07	AV
Acetone	BRL	50		ug/L	314345	1	04/27/2021 01:07	AV

Qualifiers: * Value exceeds maximum contaminant level

E Estimated (value above quantitation range)

BRL Below reporting limit

S Spike Recovery outside limits due to matrix

H Holding times for preparation or analysis exceeded

Narr See case narrative

N Analyte not NELAC certified

F Analyzed in the lab which is a deviation from the method

B Analyte detected in the associated method blank

< Less than Result value

> Greater than Result value

J Estimated value detected below Reporting Limit

Client:	Geo-Hydro Engineers, Inc.	Client Sample ID:	FD-1
Project Name:	Cedartown Formal Municipal landfill Monitoring	Collection Date:	4/20/2021
Lab ID:	2104Q56-008	Matrix:	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260D		(SW5030B)						
Benzene	BRL	5.0		ug/L	314345	1	04/27/2021 01:07	AV
Bromodichloromethane	BRL	5.0		ug/L	314345	1	04/27/2021 01:07	AV
Bromoform	BRL	5.0		ug/L	314345	1	04/27/2021 01:07	AV
Bromomethane	BRL	5.0		ug/L	314345	1	04/27/2021 01:07	AV
Carbon disulfide	BRL	5.0		ug/L	314345	1	04/27/2021 01:07	AV
Carbon tetrachloride	BRL	5.0		ug/L	314345	1	04/27/2021 01:07	AV
Chlorobenzene	BRL	5.0		ug/L	314345	1	04/27/2021 01:07	AV
Chloroethane	BRL	10		ug/L	314345	1	04/27/2021 01:07	AV
Chloroform	BRL	5.0		ug/L	314345	1	04/27/2021 01:07	AV
Chloromethane	BRL	10		ug/L	314345	1	04/27/2021 01:07	AV
cis-1,2-Dichloroethene	BRL	5.0		ug/L	314345	1	04/27/2021 01:07	AV
cis-1,3-Dichloropropene	BRL	5.0		ug/L	314345	1	04/27/2021 01:07	AV
Cyclohexane	BRL	5.0		ug/L	314345	1	04/27/2021 01:07	AV
Dibromochloromethane	BRL	5.0		ug/L	314345	1	04/27/2021 01:07	AV
Dichlorodifluoromethane	BRL	10		ug/L	314345	1	04/27/2021 01:07	AV
Ethylbenzene	BRL	5.0		ug/L	314345	1	04/27/2021 01:07	AV
Freon-113	BRL	10		ug/L	314345	1	04/27/2021 01:07	AV
Isopropylbenzene	BRL	5.0		ug/L	314345	1	04/27/2021 01:07	AV
m,p-Xylene	BRL	5.0		ug/L	314345	1	04/27/2021 01:07	AV
Methyl acetate	BRL	5.0		ug/L	314345	1	04/27/2021 01:07	AV
Methyl tert-butyl ether	BRL	5.0		ug/L	314345	1	04/27/2021 01:07	AV
Methylcyclohexane	BRL	5.0		ug/L	314345	1	04/27/2021 01:07	AV
Methylene chloride	BRL	5.0		ug/L	314345	1	04/27/2021 01:07	AV
o-Xylene	BRL	5.0		ug/L	314345	1	04/27/2021 01:07	AV
Styrene	BRL	5.0		ug/L	314345	1	04/27/2021 01:07	AV
Tetrachloroethene	BRL	5.0		ug/L	314345	1	04/27/2021 01:07	AV
Toluene	BRL	5.0		ug/L	314345	1	04/27/2021 01:07	AV
trans-1,2-Dichloroethene	BRL	5.0		ug/L	314345	1	04/27/2021 01:07	AV
trans-1,3-Dichloropropene	BRL	5.0		ug/L	314345	1	04/27/2021 01:07	AV
Trichloroethene	BRL	5.0		ug/L	314345	1	04/27/2021 01:07	AV
Trichlorofluoromethane	BRL	5.0		ug/L	314345	1	04/27/2021 01:07	AV
Vinyl chloride	BRL	2.0		ug/L	314345	1	04/27/2021 01:07	AV
Surr: 4-Bromofluorobenzene	95.1	74.9-127	%REC		314345	1	04/27/2021 01:07	AV
Surr: Dibromofluoromethane	86	78.9-121	%REC		314345	1	04/27/2021 01:07	AV
Surr: Toluene-d8	99.2	81.5-120	%REC		314345	1	04/27/2021 01:07	AV
POLYCHLORINATED BIPHENYLS SW8082A		(SW3510C)						
Aroclor 1016	BRL	0.50		ug/L	314187	1	04/26/2021 22:39	UH
Aroclor 1221	BRL	0.50		ug/L	314187	1	04/26/2021 22:39	UH
Aroclor 1232	BRL	0.50		ug/L	314187	1	04/26/2021 22:39	UH
Aroclor 1242	BRL	0.50		ug/L	314187	1	04/26/2021 22:39	UH
Aroclor 1248	BRL	0.50		ug/L	314187	1	04/26/2021 22:39	UH
Aroclor 1254	BRL	0.50		ug/L	314187	1	04/26/2021 22:39	UH
Aroclor 1260	BRL	0.50		ug/L	314187	1	04/26/2021 22:39	UH
Surr: Decachlorobiphenyl	43.9	30-120	%REC		314187	1	04/26/2021 22:39	UH

Qualifiers: * Value exceeds maximum contaminant level

E Estimated (value above quantitation range)

BRL Below reporting limit

S Spike Recovery outside limits due to matrix

H Holding times for preparation or analysis exceeded

Narr See case narrative

N Analyte not NELAC certified

F Analyzed in the lab which is a deviation from the method

B Analyte detected in the associated method blank

< Less than Result value

> Greater than Result value

J Estimated value detected below Reporting Limit

Client: Geo-Hydro Engineers, Inc.	Client Sample ID: FD-1
Project Name: Cedartown Formal Municipal landfill Monitoring	Collection Date: 4/20/2021
Lab ID: 2104Q56-008	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
POLYCHLORINATED BIPHENYLS SW8082A								
Surr: Tetrachloro-m-xylene	57.6	46.5-120		%REC	314187	1	04/26/2021 22:39	UH
METALS, TOTAL SW6010D								
Aluminum	BRL	0.200		mg/L	314227	1	04/27/2021 13:32	JM
Antimony	BRL	0.0200		mg/L	314227	1	04/27/2021 13:32	JM
Arsenic	BRL	0.0500		mg/L	314227	1	04/27/2021 13:32	JM
Barium	0.0216	0.0200		mg/L	314227	1	04/27/2021 13:32	JM
Beryllium	BRL	0.0100		mg/L	314227	1	04/27/2021 13:32	JM
Cadmium	BRL	0.0050		mg/L	314227	1	04/27/2021 13:32	JM
Calcium	83.3	0.100		mg/L	314227	1	04/27/2021 13:32	JM
Chromium	BRL	0.0100		mg/L	314227	1	04/27/2021 13:32	JM
Cobalt	BRL	0.0200		mg/L	314227	1	04/27/2021 13:32	JM
Copper	BRL	0.0100		mg/L	314227	1	04/27/2021 13:32	JM
Iron	24.1	0.100		mg/L	314227	1	04/27/2021 13:32	JM
Lead	BRL	0.0100		mg/L	314227	1	04/27/2021 13:32	JM
Magnesium	44.9	0.100		mg/L	314227	1	04/27/2021 13:32	JM
Manganese	2.26	0.0150		mg/L	314227	1	04/27/2021 13:32	JM
Nickel	BRL	0.0200		mg/L	314227	1	04/27/2021 13:32	JM
Potassium	5.20	0.500		mg/L	314227	1	04/27/2021 13:32	JM
Selenium	BRL	0.0200		mg/L	314227	1	04/27/2021 13:32	JM
Silver	BRL	0.0100		mg/L	314227	1	04/27/2021 13:32	JM
Sodium	177	1.00		mg/L	314227	1	04/27/2021 13:32	JM
Thallium	BRL	0.0200		mg/L	314227	1	04/27/2021 13:32	JM
Vanadium	BRL	0.0100		mg/L	314227	1	04/27/2021 13:32	JM
Zinc	BRL	0.0200		mg/L	314227	1	04/27/2021 13:32	JM
Mercury, Total SW7470A								
Mercury	BRL	0.00020		mg/L	314302	1	04/27/2021 19:07	SK
ION SCAN SW9056A								
Chloride	7.4	1.0		mg/L	R453243	1	04/28/2021 18:00	IP
Sulfate	690	20		mg/L	R453243	20	04/29/2021 00:41	IP
HARDNESS SM2340 B								
Hardness, Calcium/Magnesium (As CaCO3)	405	1.00		mg/L CaCO3	314227	1	04/27/2021 13:32	JM
Cyanide SW9014								
Cyanide, Total	BRL	0.010		mg/L	314518	1	04/29/2021 17:20	CB
CHLORINATED PESTICIDES, TCL SW8081B								
4,4'-DDD	BRL	0.10		ug/L	314128	1	04/26/2021 22:39	UH
4,4'-DDE	BRL	0.10		ug/L	314128	1	04/26/2021 22:39	UH
4,4'-DDT	BRL	0.10		ug/L	314128	1	04/26/2021 22:39	UH
Aldrin	BRL	0.050		ug/L	314128	1	04/26/2021 22:39	UH
alpha-BHC	BRL	0.050		ug/L	314128	1	04/26/2021 22:39	UH

Qualifiers: * Value exceeds maximum contaminant level

E Estimated (value above quantitation range)

BRL Below reporting limit

S Spike Recovery outside limits due to matrix

H Holding times for preparation or analysis exceeded

Narr See case narrative

N Analyte not NELAC certified

F Analyzed in the lab which is a deviation from the method

B Analyte detected in the associated method blank

< Less than Result value

> Greater than Result value

J Estimated value detected below Reporting Limit

Client: Geo-Hydro Engineers, Inc.	Client Sample ID: FD-1
Project Name: Cedartown Formal Municipal landfill Monitoring	Collection Date: 4/20/2021
Lab ID: 2104Q56-008	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
CHLORINATED PESTICIDES, TCL SW8081B								
alpha-Chlordane	BRL	0.050		ug/L	314128	1	04/26/2021 22:39	UH
beta-BHC	BRL	0.050		ug/L	314128	1	04/26/2021 22:39	UH
delta-BHC	BRL	0.050		ug/L	314128	1	04/26/2021 22:39	UH
Dieldrin	BRL	0.10		ug/L	314128	1	04/26/2021 22:39	UH
Endosulfan I	BRL	0.050		ug/L	314128	1	04/26/2021 22:39	UH
Endosulfan II	BRL	0.10		ug/L	314128	1	04/26/2021 22:39	UH
Endosulfan sulfate	BRL	0.10		ug/L	314128	1	04/26/2021 22:39	UH
Endrin	BRL	0.10		ug/L	314128	1	04/26/2021 22:39	UH
Endrin aldehyde	BRL	0.10		ug/L	314128	1	04/26/2021 22:39	UH
Endrin ketone	BRL	0.10		ug/L	314128	1	04/26/2021 22:39	UH
gamma-BHC	BRL	0.050		ug/L	314128	1	04/26/2021 22:39	UH
gamma-Chlordane	BRL	0.050		ug/L	314128	1	04/26/2021 22:39	UH
Heptachlor	BRL	0.050		ug/L	314128	1	04/26/2021 22:39	UH
Heptachlor epoxide	BRL	0.050		ug/L	314128	1	04/26/2021 22:39	UH
Methoxychlor	BRL	0.50		ug/L	314128	1	04/26/2021 22:39	UH
Toxaphene	BRL	5.0		ug/L	314128	1	04/26/2021 22:39	UH
Surr: Decachlorobiphenyl	43	22.9-130	%REC		314128	1	04/26/2021 22:39	UH
Surr: Tetrachloro-m-xylene	51.2	37.9-130	%REC		314128	1	04/26/2021 22:39	UH

Alkalinity by SM2320B

Alkalinity, Total (As CaCO ₃)	184	3.00	mg/L	R452903	1	04/27/2021 11:03	CB
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Qualifiers:	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
BRL	Below reporting limit	S Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr See case narrative
N	Analyte not NELAC certified	F Analyzed in the lab which is a deviation from the method
B	Analyte detected in the associated method blank	< Less than Result value
>	Greater than Result value	J Estimated value detected below Reporting Limit

Client:	Geo-Hydro Engineers, Inc.	Client Sample ID:	FD-2
Project Name:	Cedartown Formal Municipal landfill Monitoring	Collection Date:	4/21/2021
Lab ID:	2104Q56-009	Matrix:	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL-SEMOVOLATILE ORGANICS SW8270E		(SW3510C)						
1,1'-Biphenyl	BRL	10		ug/L	314156	1	04/28/2021 19:50	YH
2,4,5-Trichlorophenol	BRL	25		ug/L	314156	1	04/28/2021 19:50	YH
2,4,6-Trichlorophenol	BRL	10		ug/L	314156	1	04/28/2021 19:50	YH
2,4-Dichlorophenol	BRL	10		ug/L	314156	1	04/28/2021 19:50	YH
2,4-Dimethylphenol	BRL	10		ug/L	314156	1	04/28/2021 19:50	YH
2,4-Dinitrophenol	BRL	25		ug/L	314156	1	04/28/2021 19:50	YH
2,4-Dinitrotoluene	BRL	10		ug/L	314156	1	04/28/2021 19:50	YH
2,6-Dinitrotoluene	BRL	10		ug/L	314156	1	04/28/2021 19:50	YH
2-Chloronaphthalene	BRL	10		ug/L	314156	1	04/28/2021 19:50	YH
2-Chlorophenol	BRL	10		ug/L	314156	1	04/28/2021 19:50	YH
2-Methylnaphthalene	BRL	10		ug/L	314156	1	04/28/2021 19:50	YH
2-Methylphenol	BRL	10		ug/L	314156	1	04/28/2021 19:50	YH
2-Nitroaniline	BRL	25		ug/L	314156	1	04/28/2021 19:50	YH
2-Nitrophenol	BRL	10		ug/L	314156	1	04/28/2021 19:50	YH
3,3'-Dichlorobenzidine	BRL	10		ug/L	314156	1	04/28/2021 19:50	YH
3-Nitroaniline	BRL	25		ug/L	314156	1	04/28/2021 19:50	YH
4,6-Dinitro-2-methylphenol	BRL	25		ug/L	314156	1	04/28/2021 19:50	YH
4-Bromophenyl phenyl ether	BRL	10		ug/L	314156	1	04/28/2021 19:50	YH
4-Chloro-3-methylphenol	BRL	10		ug/L	314156	1	04/28/2021 19:50	YH
4-Chloroaniline	BRL	10		ug/L	314156	1	04/28/2021 19:50	YH
4-Chlorophenyl phenyl ether	BRL	10		ug/L	314156	1	04/28/2021 19:50	YH
4-Methylphenol	BRL	10		ug/L	314156	1	04/28/2021 19:50	YH
4-Nitroaniline	BRL	25		ug/L	314156	1	04/28/2021 19:50	YH
4-Nitrophenol	BRL	25		ug/L	314156	1	04/28/2021 19:50	YH
Acenaphthene	BRL	10		ug/L	314156	1	04/28/2021 19:50	YH
Acenaphthylene	BRL	10		ug/L	314156	1	04/28/2021 19:50	YH
Acetophenone	BRL	10		ug/L	314156	1	04/28/2021 19:50	YH
Anthracene	BRL	10		ug/L	314156	1	04/28/2021 19:50	YH
Atrazine	BRL	10		ug/L	314156	1	04/28/2021 19:50	YH
Benz(a)anthracene	BRL	10		ug/L	314156	1	04/28/2021 19:50	YH
Benzaldehyde	BRL	10		ug/L	314156	1	04/28/2021 19:50	YH
Benzo(a)pyrene	BRL	10		ug/L	314156	1	04/28/2021 19:50	YH
Benzo(b)fluoranthene	BRL	10		ug/L	314156	1	04/28/2021 19:50	YH
Benzo(g,h,i)perylene	BRL	10		ug/L	314156	1	04/28/2021 19:50	YH
Benzo(k)fluoranthene	BRL	10		ug/L	314156	1	04/28/2021 19:50	YH
Bis(2-chloroethoxy)methane	BRL	10		ug/L	314156	1	04/28/2021 19:50	YH
Bis(2-chloroethyl)ether	BRL	10		ug/L	314156	1	04/28/2021 19:50	YH
Bis(2-chloroisopropyl)ether	BRL	10		ug/L	314156	1	04/28/2021 19:50	YH
Bis(2-ethylhexyl)phthalate	BRL	10		ug/L	314156	1	04/28/2021 19:50	YH
Butyl benzyl phthalate	BRL	10		ug/L	314156	1	04/28/2021 19:50	YH
Caprolactam	BRL	10		ug/L	314156	1	04/28/2021 19:50	YH
Carbazole	BRL	10		ug/L	314156	1	04/28/2021 19:50	YH
Chrysene	BRL	10		ug/L	314156	1	04/28/2021 19:50	YH
Di-n-butyl phthalate	BRL	10		ug/L	314156	1	04/28/2021 19:50	YH
Di-n-octyl phthalate	BRL	10		ug/L	314156	1	04/28/2021 19:50	YH

Qualifiers: * Value exceeds maximum contaminant level

E Estimated (value above quantitation range)

BRL Below reporting limit

S Spike Recovery outside limits due to matrix

H Holding times for preparation or analysis exceeded

Narr See case narrative

N Analyte not NELAC certified

F Analyzed in the lab which is a deviation from the method

B Analyte detected in the associated method blank

< Less than Result value

> Greater than Result value

J Estimated value detected below Reporting Limit

Client:	Geo-Hydro Engineers, Inc.	Client Sample ID:	FD-2
Project Name:	Cedartown Formal Municipal landfill Monitoring	Collection Date:	4/21/2021
Lab ID:	2104Q56-009	Matrix:	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL-SEMOVOLATILE ORGANICS SW8270E		(SW3510C)						
Dibenz(a,h)anthracene	BRL	10		ug/L	314156	1	04/28/2021 19:50	YH
Dibenzofuran	BRL	10		ug/L	314156	1	04/28/2021 19:50	YH
Diethyl phthalate	BRL	10		ug/L	314156	1	04/28/2021 19:50	YH
Dimethyl phthalate	BRL	10		ug/L	314156	1	04/28/2021 19:50	YH
Fluoranthene	BRL	10		ug/L	314156	1	04/28/2021 19:50	YH
Fluorene	BRL	10		ug/L	314156	1	04/28/2021 19:50	YH
Hexachlorobenzene	BRL	10		ug/L	314156	1	04/28/2021 19:50	YH
Hexachlorobutadiene	BRL	10		ug/L	314156	1	04/28/2021 19:50	YH
Hexachlorocyclopentadiene	BRL	10		ug/L	314156	1	04/28/2021 19:50	YH
Hexachloroethane	BRL	10		ug/L	314156	1	04/28/2021 19:50	YH
Indeno(1,2,3-cd)pyrene	BRL	10		ug/L	314156	1	04/28/2021 19:50	YH
Isophorone	BRL	10		ug/L	314156	1	04/28/2021 19:50	YH
N-Nitrosodi-n-propylamine	BRL	10		ug/L	314156	1	04/28/2021 19:50	YH
N-Nitrosodiphenylamine	BRL	10		ug/L	314156	1	04/28/2021 19:50	YH
Naphthalene	BRL	10		ug/L	314156	1	04/28/2021 19:50	YH
Nitrobenzene	BRL	10		ug/L	314156	1	04/28/2021 19:50	YH
Pentachlorophenol	BRL	25		ug/L	314156	1	04/28/2021 19:50	YH
Phenanthrene	BRL	10		ug/L	314156	1	04/28/2021 19:50	YH
Phenol	BRL	10		ug/L	314156	1	04/28/2021 19:50	YH
Pyrene	BRL	10		ug/L	314156	1	04/28/2021 19:50	YH
Surr: 2,4,6-Tribromophenol	57.8	47-127		%REC	314156	1	04/28/2021 19:50	YH
Surr: 2-Fluorobiphenyl	61.1	47.4-119		%REC	314156	1	04/28/2021 19:50	YH
Surr: 2-Fluorophenol	23.7	26.2-120	S	%REC	314156	1	04/28/2021 19:50	YH
Surr: 4-Terphenyl-d14	67.2	45-133		%REC	314156	1	04/28/2021 19:50	YH
Surr: Nitrobenzene-d5	54.8	41.9-121		%REC	314156	1	04/28/2021 19:50	YH
Surr: Phenol-d5	15.1	17.8-120	S	%REC	314156	1	04/28/2021 19:50	YH
TCL VOLATILE ORGANICS SW8260D		(SW5030B)						
1,1,1-Trichloroethane	BRL	5.0		ug/L	314345	1	04/26/2021 23:37	AV
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	314345	1	04/26/2021 23:37	AV
1,1,2-Trichloroethane	BRL	5.0		ug/L	314345	1	04/26/2021 23:37	AV
1,1-Dichloroethane	BRL	5.0		ug/L	314345	1	04/26/2021 23:37	AV
1,1-Dichloroethene	BRL	5.0		ug/L	314345	1	04/26/2021 23:37	AV
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	314345	1	04/26/2021 23:37	AV
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	314345	1	04/26/2021 23:37	AV
1,2-Dibromoethane	BRL	5.0		ug/L	314345	1	04/26/2021 23:37	AV
1,2-Dichlorobenzene	BRL	5.0		ug/L	314345	1	04/26/2021 23:37	AV
1,2-Dichloroethane	BRL	5.0		ug/L	314345	1	04/26/2021 23:37	AV
1,2-Dichloropropane	BRL	5.0		ug/L	314345	1	04/26/2021 23:37	AV
1,3-Dichlorobenzene	BRL	5.0		ug/L	314345	1	04/26/2021 23:37	AV
1,4-Dichlorobenzene		6.2	5.0	ug/L	314345	1	04/26/2021 23:37	AV
2-Butanone	BRL	50		ug/L	314345	1	04/26/2021 23:37	AV
2-Hexanone	BRL	10		ug/L	314345	1	04/26/2021 23:37	AV
4-Methyl-2-pentanone	BRL	10		ug/L	314345	1	04/26/2021 23:37	AV
Acetone	BRL	50		ug/L	314345	1	04/26/2021 23:37	AV

Qualifiers: * Value exceeds maximum contaminant level

E Estimated (value above quantitation range)

BRL Below reporting limit

S Spike Recovery outside limits due to matrix

H Holding times for preparation or analysis exceeded

Narr See case narrative

N Analyte not NELAC certified

F Analyzed in the lab which is a deviation from the method

B Analyte detected in the associated method blank

< Less than Result value

> Greater than Result value

J Estimated value detected below Reporting Limit

Client: Geo-Hydro Engineers, Inc.	Client Sample ID: FD-2
Project Name: Cedartown Formal Municipal landfill Monitoring	Collection Date: 4/21/2021
Lab ID: 2104Q56-009	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260D		(SW5030B)						
Benzene	6.6	5.0		ug/L	314345	1	04/26/2021 23:37	AV
Bromodichloromethane	BRL	5.0		ug/L	314345	1	04/26/2021 23:37	AV
Bromoform	BRL	5.0		ug/L	314345	1	04/26/2021 23:37	AV
Bromomethane	BRL	5.0		ug/L	314345	1	04/26/2021 23:37	AV
Carbon disulfide	BRL	5.0		ug/L	314345	1	04/26/2021 23:37	AV
Carbon tetrachloride	BRL	5.0		ug/L	314345	1	04/26/2021 23:37	AV
Chlorobenzene	15	5.0		ug/L	314345	1	04/26/2021 23:37	AV
Chloroethane	BRL	10		ug/L	314345	1	04/26/2021 23:37	AV
Chloroform	BRL	5.0		ug/L	314345	1	04/26/2021 23:37	AV
Chloromethane	BRL	10		ug/L	314345	1	04/26/2021 23:37	AV
cis-1,2-Dichloroethene	BRL	5.0		ug/L	314345	1	04/26/2021 23:37	AV
cis-1,3-Dichloropropene	BRL	5.0		ug/L	314345	1	04/26/2021 23:37	AV
Cyclohexane	BRL	5.0		ug/L	314345	1	04/26/2021 23:37	AV
Dibromochloromethane	BRL	5.0		ug/L	314345	1	04/26/2021 23:37	AV
Dichlorodifluoromethane	BRL	10		ug/L	314345	1	04/26/2021 23:37	AV
Ethylbenzene	BRL	5.0		ug/L	314345	1	04/26/2021 23:37	AV
Freon-113	BRL	10		ug/L	314345	1	04/26/2021 23:37	AV
Isopropylbenzene	BRL	5.0		ug/L	314345	1	04/26/2021 23:37	AV
m,p-Xylene	BRL	5.0		ug/L	314345	1	04/26/2021 23:37	AV
Methyl acetate	BRL	5.0		ug/L	314345	1	04/26/2021 23:37	AV
Methyl tert-butyl ether	BRL	5.0		ug/L	314345	1	04/26/2021 23:37	AV
Methylcyclohexane	BRL	5.0		ug/L	314345	1	04/26/2021 23:37	AV
Methylene chloride	BRL	5.0		ug/L	314345	1	04/26/2021 23:37	AV
o-Xylene	BRL	5.0		ug/L	314345	1	04/26/2021 23:37	AV
Styrene	BRL	5.0		ug/L	314345	1	04/26/2021 23:37	AV
Tetrachloroethene	BRL	5.0		ug/L	314345	1	04/26/2021 23:37	AV
Toluene	BRL	5.0		ug/L	314345	1	04/26/2021 23:37	AV
trans-1,2-Dichloroethene	BRL	5.0		ug/L	314345	1	04/26/2021 23:37	AV
trans-1,3-Dichloropropene	BRL	5.0		ug/L	314345	1	04/26/2021 23:37	AV
Trichloroethene	BRL	5.0		ug/L	314345	1	04/26/2021 23:37	AV
Trichlorofluoromethane	BRL	5.0		ug/L	314345	1	04/26/2021 23:37	AV
Vinyl chloride	BRL	2.0		ug/L	314345	1	04/26/2021 23:37	AV
Surr: 4-Bromofluorobenzene	96.2	74.9-127	%REC		314345	1	04/26/2021 23:37	AV
Surr: Dibromofluoromethane	86.4	78.9-121	%REC		314345	1	04/26/2021 23:37	AV
Surr: Toluene-d8	101	81.5-120	%REC		314345	1	04/26/2021 23:37	AV
POLYCHLORINATED BIPHENYLS SW8082A		(SW3510C)						
Aroclor 1016	BRL	0.50		ug/L	314187	1	04/26/2021 22:50	UH
Aroclor 1221	BRL	0.50		ug/L	314187	1	04/26/2021 22:50	UH
Aroclor 1232	BRL	0.50		ug/L	314187	1	04/26/2021 22:50	UH
Aroclor 1242	BRL	0.50		ug/L	314187	1	04/26/2021 22:50	UH
Aroclor 1248	BRL	0.50		ug/L	314187	1	04/26/2021 22:50	UH
Aroclor 1254	BRL	1.0		ug/L	314187	2	04/27/2021 14:00	UH
Aroclor 1260	BRL	1.0		ug/L	314187	2	04/27/2021 14:00	UH
Surr: Decachlorobiphenyl	54.9	30-120	%REC		314187	1	04/26/2021 22:50	UH

Qualifiers: * Value exceeds maximum contaminant level

E Estimated (value above quantitation range)

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Client: Geo-Hydro Engineers, Inc.	Client Sample ID: FD-2
Project Name: Cedartown Formal Municipal landfill Monitoring	Collection Date: 4/21/2021
Lab ID: 2104Q56-009	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
POLYCHLORINATED BIPHENYLS SW8082A								
Surr: Tetrachloro-m-xylene	74.5	46.5-120		%REC	314187	1	04/26/2021 22:50	UH
METALS, TOTAL SW6010D								
Aluminum	BRL	0.200		mg/L	314227	1	04/27/2021 13:35	JM
Antimony	BRL	0.0200		mg/L	314227	1	04/27/2021 13:35	JM
Arsenic	BRL	0.0500		mg/L	314227	1	04/27/2021 13:35	JM
Barium	0.132	0.0200		mg/L	314227	1	04/27/2021 13:35	JM
Beryllium	BRL	0.0100		mg/L	314227	1	04/27/2021 13:35	JM
Cadmium	BRL	0.0050		mg/L	314227	1	04/27/2021 13:35	JM
Calcium	245	0.500		mg/L	314227	5	04/27/2021 13:54	JM
Chromium	BRL	0.0100		mg/L	314227	1	04/27/2021 13:35	JM
Cobalt	BRL	0.0200		mg/L	314227	1	04/27/2021 13:35	JM
Copper	BRL	0.0100		mg/L	314227	1	04/27/2021 13:35	JM
Iron	22.8	0.100		mg/L	314227	1	04/27/2021 13:35	JM
Lead	BRL	0.0100		mg/L	314227	1	04/27/2021 13:35	JM
Magnesium	19.9	0.500		mg/L	314227	5	04/27/2021 13:54	JM
Manganese	1.55	0.0150		mg/L	314227	1	04/27/2021 13:35	JM
Nickel	BRL	0.0200		mg/L	314227	1	04/27/2021 13:35	JM
Potassium	22.3	0.500		mg/L	314227	1	04/27/2021 13:35	JM
Selenium	BRL	0.0200		mg/L	314227	1	04/27/2021 13:35	JM
Silver	BRL	0.0100		mg/L	314227	1	04/27/2021 13:35	JM
Sodium	23.8	1.00		mg/L	314227	1	04/27/2021 13:35	JM
Thallium	BRL	0.0200		mg/L	314227	1	04/27/2021 13:35	JM
Vanadium	BRL	0.0100		mg/L	314227	1	04/27/2021 13:35	JM
Zinc	0.0271	0.0200		mg/L	314227	1	04/27/2021 13:35	JM
Mercury, Total SW7470A								
Mercury	BRL	0.00020		mg/L	314302	1	04/27/2021 19:11	SK
ION SCAN SW9056A								
Chloride	9.5	1.0		mg/L	R453243	1	04/28/2021 18:16	IP
Sulfate	420	20		mg/L	R453243	20	04/29/2021 14:25	IP
HARDNESS SM2340 B								
Hardness, Calcium/Magnesium (As CaCO3)	694	1.00		mg/L CaCO3	314227	1	04/27/2021 13:54	JM
Cyanide SW9014								
Cyanide, Total	BRL	0.010		mg/L	314518	1	04/29/2021 17:21	CB
CHLORINATED PESTICIDES, TCL SW8081B								
4,4'-DDD	BRL	0.10		ug/L	314128	1	04/26/2021 22:50	UH
4,4'-DDE	BRL	0.10		ug/L	314128	1	04/26/2021 22:50	UH
4,4'-DDT	BRL	0.10		ug/L	314128	1	04/26/2021 22:50	UH
Aldrin	BRL	0.050		ug/L	314128	1	04/26/2021 22:50	UH
alpha-BHC	BRL	0.050		ug/L	314128	1	04/26/2021 22:50	UH

Qualifiers: * Value exceeds maximum contaminant level

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Client: Geo-Hydro Engineers, Inc.	Client Sample ID: FD-2
Project Name: Cedartown Formal Municipal landfill Monitoring	Collection Date: 4/21/2021
Lab ID: 2104Q56-009	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
CHLORINATED PESTICIDES, TCL SW8081B								
alpha-Chlordane	BRL	0.050		ug/L	314128	1	04/26/2021 22:50	UH
beta-BHC	BRL	0.050		ug/L	314128	1	04/26/2021 22:50	UH
delta-BHC	BRL	0.050		ug/L	314128	1	04/26/2021 22:50	UH
Dieldrin	BRL	0.10		ug/L	314128	1	04/26/2021 22:50	UH
Endosulfan I	BRL	0.050		ug/L	314128	1	04/26/2021 22:50	UH
Endosulfan II	BRL	0.10		ug/L	314128	1	04/26/2021 22:50	UH
Endosulfan sulfate	BRL	0.10		ug/L	314128	1	04/26/2021 22:50	UH
Endrin	BRL	0.10		ug/L	314128	1	04/26/2021 22:50	UH
Endrin aldehyde	BRL	0.10		ug/L	314128	1	04/26/2021 22:50	UH
Endrin ketone	BRL	0.10		ug/L	314128	1	04/26/2021 22:50	UH
gamma-BHC	BRL	0.050		ug/L	314128	1	04/26/2021 22:50	UH
gamma-Chlordane	BRL	0.050		ug/L	314128	1	04/26/2021 22:50	UH
Heptachlor	BRL	0.050		ug/L	314128	1	04/26/2021 22:50	UH
Heptachlor epoxide	BRL	0.050		ug/L	314128	1	04/26/2021 22:50	UH
Methoxychlor	BRL	0.50		ug/L	314128	1	04/26/2021 22:50	UH
Toxaphene	BRL	10		ug/L	314128	2	04/27/2021 14:00	UH
Surr: Decachlorobiphenyl	54.5	22.9-130	%REC		314128	1	04/26/2021 22:50	UH
Surr: Tetrachloro-m-xylene	69.4	37.9-130	%REC		314128	1	04/26/2021 22:50	UH

Alkalinity by SM2320B

Alkalinity, Total (As CaCO ₃)	727	3.00	mg/L	R453035	1	04/28/2021 12:16	CB
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Qualifiers: * Value exceeds maximum contaminant level

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Client:	Geo-Hydro Engineers, Inc.	Client Sample ID:	FD-3
Project Name:	Cedartown Formal Municipal landfill Monitoring	Collection Date:	4/22/2021
Lab ID:	2104Q56-010	Matrix:	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL-SEMOVOLATILE ORGANICS SW8270E		(SW3510C)						
1,1'-Biphenyl	BRL	10		ug/L	314156	1	04/28/2021 20:16	YH
2,4,5-Trichlorophenol	BRL	25		ug/L	314156	1	04/28/2021 20:16	YH
2,4,6-Trichlorophenol	BRL	10		ug/L	314156	1	04/28/2021 20:16	YH
2,4-Dichlorophenol	BRL	10		ug/L	314156	1	04/28/2021 20:16	YH
2,4-Dimethylphenol	BRL	10		ug/L	314156	1	04/28/2021 20:16	YH
2,4-Dinitrophenol	BRL	25		ug/L	314156	1	04/28/2021 20:16	YH
2,4-Dinitrotoluene	BRL	10		ug/L	314156	1	04/28/2021 20:16	YH
2,6-Dinitrotoluene	BRL	10		ug/L	314156	1	04/28/2021 20:16	YH
2-Chloronaphthalene	BRL	10		ug/L	314156	1	04/28/2021 20:16	YH
2-Chlorophenol	BRL	10		ug/L	314156	1	04/28/2021 20:16	YH
2-Methylnaphthalene	BRL	10		ug/L	314156	1	04/28/2021 20:16	YH
2-Methylphenol	BRL	10		ug/L	314156	1	04/28/2021 20:16	YH
2-Nitroaniline	BRL	25		ug/L	314156	1	04/28/2021 20:16	YH
2-Nitrophenol	BRL	10		ug/L	314156	1	04/28/2021 20:16	YH
3,3'-Dichlorobenzidine	BRL	10		ug/L	314156	1	04/28/2021 20:16	YH
3-Nitroaniline	BRL	25		ug/L	314156	1	04/28/2021 20:16	YH
4,6-Dinitro-2-methylphenol	BRL	25		ug/L	314156	1	04/28/2021 20:16	YH
4-Bromophenyl phenyl ether	BRL	10		ug/L	314156	1	04/28/2021 20:16	YH
4-Chloro-3-methylphenol	BRL	10		ug/L	314156	1	04/28/2021 20:16	YH
4-Chloroaniline	BRL	10		ug/L	314156	1	04/28/2021 20:16	YH
4-Chlorophenyl phenyl ether	BRL	10		ug/L	314156	1	04/28/2021 20:16	YH
4-Methylphenol	BRL	10		ug/L	314156	1	04/28/2021 20:16	YH
4-Nitroaniline	BRL	25		ug/L	314156	1	04/28/2021 20:16	YH
4-Nitrophenol	BRL	25		ug/L	314156	1	04/28/2021 20:16	YH
Acenaphthene	BRL	10		ug/L	314156	1	04/28/2021 20:16	YH
Acenaphthylene	BRL	10		ug/L	314156	1	04/28/2021 20:16	YH
Acetophenone	BRL	10		ug/L	314156	1	04/28/2021 20:16	YH
Anthracene	BRL	10		ug/L	314156	1	04/28/2021 20:16	YH
Atrazine	BRL	10		ug/L	314156	1	04/28/2021 20:16	YH
Benz(a)anthracene	BRL	10		ug/L	314156	1	04/28/2021 20:16	YH
Benzaldehyde	BRL	10		ug/L	314156	1	04/28/2021 20:16	YH
Benzo(a)pyrene	BRL	10		ug/L	314156	1	04/28/2021 20:16	YH
Benzo(b)fluoranthene	BRL	10		ug/L	314156	1	04/28/2021 20:16	YH
Benzo(g,h,i)perylene	BRL	10		ug/L	314156	1	04/28/2021 20:16	YH
Benzo(k)fluoranthene	BRL	10		ug/L	314156	1	04/28/2021 20:16	YH
Bis(2-chloroethoxy)methane	BRL	10		ug/L	314156	1	04/28/2021 20:16	YH
Bis(2-chloroethyl)ether	BRL	10		ug/L	314156	1	04/28/2021 20:16	YH
Bis(2-chloroisopropyl)ether	BRL	10		ug/L	314156	1	04/28/2021 20:16	YH
Bis(2-ethylhexyl)phthalate	BRL	10		ug/L	314156	1	04/28/2021 20:16	YH
Butyl benzyl phthalate	BRL	10		ug/L	314156	1	04/28/2021 20:16	YH
Caprolactam	BRL	10		ug/L	314156	1	04/28/2021 20:16	YH
Carbazole	BRL	10		ug/L	314156	1	04/28/2021 20:16	YH
Chrysene	BRL	10		ug/L	314156	1	04/28/2021 20:16	YH
Di-n-butyl phthalate	BRL	10		ug/L	314156	1	04/28/2021 20:16	YH
Di-n-octyl phthalate	BRL	10		ug/L	314156	1	04/28/2021 20:16	YH

Qualifiers: * Value exceeds maximum contaminant level

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Client:	Geo-Hydro Engineers, Inc.	Client Sample ID:	FD-3
Project Name:	Cedartown Formal Municipal landfill Monitoring	Collection Date:	4/22/2021
Lab ID:	2104Q56-010	Matrix:	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL-SEMOVOLATILE ORGANICS SW8270E		(SW3510C)						
Dibenz(a,h)anthracene	BRL	10		ug/L	314156	1	04/28/2021 20:16	YH
Dibenzofuran	BRL	10		ug/L	314156	1	04/28/2021 20:16	YH
Diethyl phthalate	BRL	10		ug/L	314156	1	04/28/2021 20:16	YH
Dimethyl phthalate	BRL	10		ug/L	314156	1	04/28/2021 20:16	YH
Fluoranthene	BRL	10		ug/L	314156	1	04/28/2021 20:16	YH
Fluorene	BRL	10		ug/L	314156	1	04/28/2021 20:16	YH
Hexachlorobenzene	BRL	10		ug/L	314156	1	04/28/2021 20:16	YH
Hexachlorobutadiene	BRL	10		ug/L	314156	1	04/28/2021 20:16	YH
Hexachlorocyclopentadiene	BRL	10		ug/L	314156	1	04/28/2021 20:16	YH
Hexachloroethane	BRL	10		ug/L	314156	1	04/28/2021 20:16	YH
Indeno(1,2,3-cd)pyrene	BRL	10		ug/L	314156	1	04/28/2021 20:16	YH
Isophorone	BRL	10		ug/L	314156	1	04/28/2021 20:16	YH
N-Nitrosodi-n-propylamine	BRL	10		ug/L	314156	1	04/28/2021 20:16	YH
N-Nitrosodiphenylamine	BRL	10		ug/L	314156	1	04/28/2021 20:16	YH
Naphthalene	BRL	10		ug/L	314156	1	04/28/2021 20:16	YH
Nitrobenzene	BRL	10		ug/L	314156	1	04/28/2021 20:16	YH
Pentachlorophenol	BRL	25		ug/L	314156	1	04/28/2021 20:16	YH
Phenanthrene	BRL	10		ug/L	314156	1	04/28/2021 20:16	YH
Phenol	BRL	10		ug/L	314156	1	04/28/2021 20:16	YH
Pyrene	BRL	10		ug/L	314156	1	04/28/2021 20:16	YH
Surr: 2,4,6-Tribromophenol	67.2	47-127		%REC	314156	1	04/28/2021 20:16	YH
Surr: 2-Fluorobiphenyl	93	47.4-119		%REC	314156	1	04/28/2021 20:16	YH
Surr: 2-Fluorophenol	23.3	26.2-120	S	%REC	314156	1	04/28/2021 20:16	YH
Surr: 4-Terphenyl-d14	100	45-133		%REC	314156	1	04/28/2021 20:16	YH
Surr: Nitrobenzene-d5	79.8	41.9-121		%REC	314156	1	04/28/2021 20:16	YH
Surr: Phenol-d5	16.2	17.8-120	S	%REC	314156	1	04/28/2021 20:16	YH
TCL VOLATILE ORGANICS SW8260D		(SW5030B)						
1,1,1-Trichloroethane	BRL	5.0		ug/L	314345	1	04/27/2021 00:00	AV
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	314345	1	04/27/2021 00:00	AV
1,1,2-Trichloroethane	BRL	5.0		ug/L	314345	1	04/27/2021 00:00	AV
1,1-Dichloroethane	BRL	5.0		ug/L	314345	1	04/27/2021 00:00	AV
1,1-Dichloroethene	BRL	5.0		ug/L	314345	1	04/27/2021 00:00	AV
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	314345	1	04/27/2021 00:00	AV
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	314345	1	04/27/2021 00:00	AV
1,2-Dibromoethane	BRL	5.0		ug/L	314345	1	04/27/2021 00:00	AV
1,2-Dichlorobenzene	BRL	5.0		ug/L	314345	1	04/27/2021 00:00	AV
1,2-Dichloroethane	BRL	5.0		ug/L	314345	1	04/27/2021 00:00	AV
1,2-Dichloropropane	BRL	5.0		ug/L	314345	1	04/27/2021 00:00	AV
1,3-Dichlorobenzene	BRL	5.0		ug/L	314345	1	04/27/2021 00:00	AV
1,4-Dichlorobenzene	BRL	5.0		ug/L	314345	1	04/27/2021 00:00	AV
2-Butanone	BRL	50		ug/L	314345	1	04/27/2021 00:00	AV
2-Hexanone	BRL	10		ug/L	314345	1	04/27/2021 00:00	AV
4-Methyl-2-pentanone	BRL	10		ug/L	314345	1	04/27/2021 00:00	AV
Acetone	BRL	50		ug/L	314345	1	04/27/2021 00:00	AV

Qualifiers: * Value exceeds maximum contaminant level

E Estimated (value above quantitation range)

BRL Below reporting limit

S Spike Recovery outside limits due to matrix

H Holding times for preparation or analysis exceeded

Narr See case narrative

N Analyte not NELAC certified

F Analyzed in the lab which is a deviation from the method

B Analyte detected in the associated method blank

< Less than Result value

> Greater than Result value

J Estimated value detected below Reporting Limit

Client: Geo-Hydro Engineers, Inc.	Client Sample ID: FD-3
Project Name: Cedartown Formal Municipal landfill Monitoring	Collection Date: 4/22/2021
Lab ID: 2104Q56-010	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260D		(SW5030B)						
Benzene	BRL	5.0		ug/L	314345	1	04/27/2021 00:00	AV
Bromodichloromethane	BRL	5.0		ug/L	314345	1	04/27/2021 00:00	AV
Bromoform	BRL	5.0		ug/L	314345	1	04/27/2021 00:00	AV
Bromomethane	BRL	5.0		ug/L	314345	1	04/27/2021 00:00	AV
Carbon disulfide	BRL	5.0		ug/L	314345	1	04/27/2021 00:00	AV
Carbon tetrachloride	BRL	5.0		ug/L	314345	1	04/27/2021 00:00	AV
Chlorobenzene	BRL	5.0		ug/L	314345	1	04/27/2021 00:00	AV
Chloroethane	BRL	10		ug/L	314345	1	04/27/2021 00:00	AV
Chloroform	BRL	5.0		ug/L	314345	1	04/27/2021 00:00	AV
Chloromethane	BRL	10		ug/L	314345	1	04/27/2021 00:00	AV
cis-1,2-Dichloroethene	BRL	5.0		ug/L	314345	1	04/27/2021 00:00	AV
cis-1,3-Dichloropropene	BRL	5.0		ug/L	314345	1	04/27/2021 00:00	AV
Cyclohexane	BRL	5.0		ug/L	314345	1	04/27/2021 00:00	AV
Dibromochloromethane	BRL	5.0		ug/L	314345	1	04/27/2021 00:00	AV
Dichlorodifluoromethane	BRL	10		ug/L	314345	1	04/27/2021 00:00	AV
Ethylbenzene	BRL	5.0		ug/L	314345	1	04/27/2021 00:00	AV
Freon-113	BRL	10		ug/L	314345	1	04/27/2021 00:00	AV
Isopropylbenzene	BRL	5.0		ug/L	314345	1	04/27/2021 00:00	AV
m,p-Xylene	BRL	5.0		ug/L	314345	1	04/27/2021 00:00	AV
Methyl acetate	BRL	5.0		ug/L	314345	1	04/27/2021 00:00	AV
Methyl tert-butyl ether	BRL	5.0		ug/L	314345	1	04/27/2021 00:00	AV
Methylcyclohexane	BRL	5.0		ug/L	314345	1	04/27/2021 00:00	AV
Methylene chloride	BRL	5.0		ug/L	314345	1	04/27/2021 00:00	AV
o-Xylene	BRL	5.0		ug/L	314345	1	04/27/2021 00:00	AV
Styrene	BRL	5.0		ug/L	314345	1	04/27/2021 00:00	AV
Tetrachloroethene	BRL	5.0		ug/L	314345	1	04/27/2021 00:00	AV
Toluene	BRL	5.0		ug/L	314345	1	04/27/2021 00:00	AV
trans-1,2-Dichloroethene	BRL	5.0		ug/L	314345	1	04/27/2021 00:00	AV
trans-1,3-Dichloropropene	BRL	5.0		ug/L	314345	1	04/27/2021 00:00	AV
Trichloroethene	BRL	5.0		ug/L	314345	1	04/27/2021 00:00	AV
Trichlorofluoromethane	BRL	5.0		ug/L	314345	1	04/27/2021 00:00	AV
Vinyl chloride	BRL	2.0		ug/L	314345	1	04/27/2021 00:00	AV
Surr: 4-Bromofluorobenzene	97.4	74.9-127	%REC		314345	1	04/27/2021 00:00	AV
Surr: Dibromofluoromethane	88	78.9-121	%REC		314345	1	04/27/2021 00:00	AV
Surr: Toluene-d8	102	81.5-120	%REC		314345	1	04/27/2021 00:00	AV
POLYCHLORINATED BIPHENYLS SW8082A		(SW3510C)						
Aroclor 1016	BRL	0.50		ug/L	314368	1	04/28/2021 14:20	UH
Aroclor 1221	BRL	0.50		ug/L	314368	1	04/28/2021 14:20	UH
Aroclor 1232	BRL	0.50		ug/L	314368	1	04/28/2021 14:20	UH
Aroclor 1242	BRL	0.50		ug/L	314368	1	04/28/2021 14:20	UH
Aroclor 1248	BRL	0.50		ug/L	314368	1	04/28/2021 14:20	UH
Aroclor 1254	BRL	0.50		ug/L	314368	1	04/28/2021 14:20	UH
Aroclor 1260	BRL	0.50		ug/L	314368	1	04/28/2021 14:20	UH
Surr: Decachlorobiphenyl	65.6	30-120	%REC		314368	1	04/28/2021 14:20	UH

Qualifiers: * Value exceeds maximum contaminant level

E Estimated (value above quantitation range)

BRL Below reporting limit

S Spike Recovery outside limits due to matrix

H Holding times for preparation or analysis exceeded

Narr See case narrative

N Analyte not NELAC certified

F Analyzed in the lab which is a deviation from the method

B Analyte detected in the associated method blank

< Less than Result value

> Greater than Result value

J Estimated value detected below Reporting Limit

Client: Geo-Hydro Engineers, Inc.	Client Sample ID: FD-3
Project Name: Cedartown Formal Municipal landfill Monitoring	Collection Date: 4/22/2021
Lab ID: 2104Q56-010	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
POLYCHLORINATED BIPHENYLS SW8082A								
Surr: Tetrachloro-m-xylene	83.7	46.5-120		%REC	314368	1	04/28/2021 14:20	UH
METALS, TOTAL SW6010D								
Aluminum	BRL	0.200		mg/L	314227	1	04/27/2021 13:45	JM
Antimony	BRL	0.0200		mg/L	314227	1	04/27/2021 13:45	JM
Arsenic	BRL	0.0500		mg/L	314227	1	04/27/2021 13:45	JM
Barium	0.0394	0.0200		mg/L	314227	1	04/27/2021 13:45	JM
Beryllium	BRL	0.0100		mg/L	314227	1	04/27/2021 13:45	JM
Cadmium	BRL	0.0050		mg/L	314227	1	04/27/2021 13:45	JM
Calcium	36.4	0.100		mg/L	314227	1	04/27/2021 13:45	JM
Chromium	BRL	0.0100		mg/L	314227	1	04/27/2021 13:45	JM
Cobalt	BRL	0.0200		mg/L	314227	1	04/27/2021 13:45	JM
Copper	BRL	0.0100		mg/L	314227	1	04/27/2021 13:45	JM
Iron	5.58	0.100		mg/L	314227	1	04/27/2021 13:45	JM
Lead	BRL	0.0100		mg/L	314227	1	04/27/2021 13:45	JM
Magnesium	20.2	0.100		mg/L	314227	1	04/27/2021 13:45	JM
Manganese	0.502	0.0150		mg/L	314227	1	04/27/2021 13:45	JM
Nickel	BRL	0.0200		mg/L	314227	1	04/27/2021 13:45	JM
Potassium	1.27	0.500		mg/L	314227	1	04/27/2021 13:45	JM
Selenium	BRL	0.0200		mg/L	314227	1	04/27/2021 13:45	JM
Silver	BRL	0.0100		mg/L	314227	1	04/27/2021 13:45	JM
Sodium	1.42	1.00		mg/L	314227	1	04/27/2021 13:45	JM
Thallium	BRL	0.0200		mg/L	314227	1	04/27/2021 13:45	JM
Vanadium	BRL	0.0100		mg/L	314227	1	04/27/2021 13:45	JM
Zinc	BRL	0.0200		mg/L	314227	1	04/27/2021 13:45	JM
Mercury, Total SW7470A								
Mercury	BRL	0.00020		mg/L	314302	1	04/27/2021 19:27	SK
ION SCAN SW9056A								
Chloride	4.4	1.0		mg/L	R453243	1	04/28/2021 18:32	IP
Sulfate	3.2	1.0		mg/L	R453243	1	04/29/2021 14:41	IP
HARDNESS SM2340 B								
Hardness, Calcium/Magnesium (As CaCO3)	174	1.00		mg/L CaCO3	314227	1	04/27/2021 13:45	JM
Cyanide SW9014								
Cyanide, Total	BRL	0.010		mg/L	314518	1	04/29/2021 17:29	CB
CHLORINATED PESTICIDES, TCL SW8081B								
4,4'-DDD	BRL	0.10		ug/L	312722	1	04/28/2021 14:20	UH
4,4'-DDE	BRL	0.10		ug/L	312722	1	04/28/2021 14:20	UH
4,4'-DDT	BRL	0.10		ug/L	312722	1	04/28/2021 14:20	UH
Aldrin	BRL	0.050		ug/L	312722	1	04/28/2021 14:20	UH
alpha-BHC	BRL	0.050		ug/L	312722	1	04/28/2021 14:20	UH

Qualifiers: * Value exceeds maximum contaminant level

E Estimated (value above quantitation range)

BRL Below reporting limit

S Spike Recovery outside limits due to matrix

H Holding times for preparation or analysis exceeded

Narr See case narrative

N Analyte not NELAC certified

F Analyzed in the lab which is a deviation from the method

B Analyte detected in the associated method blank

< Less than Result value

> Greater than Result value

J Estimated value detected below Reporting Limit

Client:	Geo-Hydro Engineers, Inc.	Client Sample ID:	FD-3
Project Name:	Cedartown Formal Municipal landfill Monitoring	Collection Date:	4/22/2021
Lab ID:	2104Q56-010	Matrix:	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
CHLORINATED PESTICIDES, TCL SW8081B								
alpha-Chlordane	BRL	0.050		ug/L	312722	1	04/28/2021 14:20	UH
beta-BHC	BRL	0.050		ug/L	312722	1	04/28/2021 14:20	UH
delta-BHC	BRL	0.050		ug/L	312722	1	04/28/2021 14:20	UH
Dieldrin	BRL	0.10		ug/L	312722	1	04/28/2021 14:20	UH
Endosulfan I	BRL	0.050		ug/L	312722	1	04/28/2021 14:20	UH
Endosulfan II	BRL	0.10		ug/L	312722	1	04/28/2021 14:20	UH
Endosulfan sulfate	BRL	0.10		ug/L	312722	1	04/28/2021 14:20	UH
Endrin	BRL	0.10		ug/L	312722	1	04/28/2021 14:20	UH
Endrin aldehyde	BRL	0.10		ug/L	312722	1	04/28/2021 14:20	UH
Endrin ketone	BRL	0.10		ug/L	312722	1	04/28/2021 14:20	UH
gamma-BHC	BRL	0.050		ug/L	312722	1	04/28/2021 14:20	UH
gamma-Chlordane	BRL	0.050		ug/L	312722	1	04/28/2021 14:20	UH
Heptachlor	BRL	0.050		ug/L	312722	1	04/28/2021 14:20	UH
Heptachlor epoxide	BRL	0.050		ug/L	312722	1	04/28/2021 14:20	UH
Methoxychlor	BRL	0.50		ug/L	312722	1	04/28/2021 14:20	UH
Toxaphene	BRL	5.0		ug/L	312722	1	04/28/2021 14:20	UH
Surr: Decachlorobiphenyl	63.1	22.9-130	%REC		312722	1	04/28/2021 14:20	UH
Surr: Tetrachloro-m-xylene	80.1	37.9-130	%REC		312722	1	04/28/2021 14:20	UH

Alkalinity by SM2320B

Alkalinity, Total (As CaCO ₃)	197	3.00	mg/L	R452903	1	04/27/2021 11:03	CB
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Qualifiers:	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
BRL	Below reporting limit	S Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr See case narrative
N	Analyte not NELAC certified	F Analyzed in the lab which is a deviation from the method
B	Analyte detected in the associated method blank	< Less than Result value
>	Greater than Result value	J Estimated value detected below Reporting Limit

Client:	Geo-Hydro Engineers, Inc.	Client Sample ID:	TRIP BLANK
Project Name:	Cedartown Formal Municipal landfill Monitoring	Collection Date:	4/22/2021
Lab ID:	2104Q56-011	Matrix:	Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260D		(SW5030B)						
1,1,1-Trichloroethane	BRL	5.0		ug/L	314345	1	04/26/2021 21:22	AV
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	314345	1	04/26/2021 21:22	AV
1,1,2-Trichloroethane	BRL	5.0		ug/L	314345	1	04/26/2021 21:22	AV
1,1-Dichloroethane	BRL	5.0		ug/L	314345	1	04/26/2021 21:22	AV
1,1-Dichloroethene	BRL	5.0		ug/L	314345	1	04/26/2021 21:22	AV
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	314345	1	04/26/2021 21:22	AV
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	314345	1	04/26/2021 21:22	AV
1,2-Dibromoethane	BRL	5.0		ug/L	314345	1	04/26/2021 21:22	AV
1,2-Dichlorobenzene	BRL	5.0		ug/L	314345	1	04/26/2021 21:22	AV
1,2-Dichloroethane	BRL	5.0		ug/L	314345	1	04/26/2021 21:22	AV
1,2-Dichloropropane	BRL	5.0		ug/L	314345	1	04/26/2021 21:22	AV
1,3-Dichlorobenzene	BRL	5.0		ug/L	314345	1	04/26/2021 21:22	AV
1,4-Dichlorobenzene	BRL	5.0		ug/L	314345	1	04/26/2021 21:22	AV
2-Butanone	BRL	50		ug/L	314345	1	04/26/2021 21:22	AV
2-Hexanone	BRL	10		ug/L	314345	1	04/26/2021 21:22	AV
4-Methyl-2-pentanone	BRL	10		ug/L	314345	1	04/26/2021 21:22	AV
Acetone	BRL	50		ug/L	314345	1	04/26/2021 21:22	AV
Benzene	BRL	5.0		ug/L	314345	1	04/26/2021 21:22	AV
Bromodichloromethane	BRL	5.0		ug/L	314345	1	04/26/2021 21:22	AV
Bromoform	BRL	5.0		ug/L	314345	1	04/26/2021 21:22	AV
Bromomethane	BRL	5.0		ug/L	314345	1	04/26/2021 21:22	AV
Carbon disulfide	BRL	5.0		ug/L	314345	1	04/26/2021 21:22	AV
Carbon tetrachloride	BRL	5.0		ug/L	314345	1	04/26/2021 21:22	AV
Chlorobenzene	BRL	5.0		ug/L	314345	1	04/26/2021 21:22	AV
Chloroethane	BRL	10		ug/L	314345	1	04/26/2021 21:22	AV
Chloroform	BRL	5.0		ug/L	314345	1	04/26/2021 21:22	AV
Chloromethane	BRL	10		ug/L	314345	1	04/26/2021 21:22	AV
cis-1,2-Dichloroethene	BRL	5.0		ug/L	314345	1	04/26/2021 21:22	AV
cis-1,3-Dichloropropene	BRL	5.0		ug/L	314345	1	04/26/2021 21:22	AV
Cyclohexane	BRL	5.0		ug/L	314345	1	04/26/2021 21:22	AV
Dibromochloromethane	BRL	5.0		ug/L	314345	1	04/26/2021 21:22	AV
Dichlorodifluoromethane	BRL	10		ug/L	314345	1	04/26/2021 21:22	AV
Ethylbenzene	BRL	5.0		ug/L	314345	1	04/26/2021 21:22	AV
Freon-113	BRL	10		ug/L	314345	1	04/26/2021 21:22	AV
Isopropylbenzene	BRL	5.0		ug/L	314345	1	04/26/2021 21:22	AV
m,p-Xylene	BRL	5.0		ug/L	314345	1	04/26/2021 21:22	AV
Methyl acetate	BRL	5.0		ug/L	314345	1	04/26/2021 21:22	AV
Methyl tert-butyl ether	BRL	5.0		ug/L	314345	1	04/26/2021 21:22	AV
Methylcyclohexane	BRL	5.0		ug/L	314345	1	04/26/2021 21:22	AV
Methylene chloride	BRL	5.0		ug/L	314345	1	04/26/2021 21:22	AV
o-Xylene	BRL	5.0		ug/L	314345	1	04/26/2021 21:22	AV
Styrene	BRL	5.0		ug/L	314345	1	04/26/2021 21:22	AV
Tetrachloroethene	BRL	5.0		ug/L	314345	1	04/26/2021 21:22	AV
Toluene	BRL	5.0		ug/L	314345	1	04/26/2021 21:22	AV
trans-1,2-Dichloroethene	BRL	5.0		ug/L	314345	1	04/26/2021 21:22	AV

Qualifiers: * Value exceeds maximum contaminant level

E Estimated (value above quantitation range)

BRL Below reporting limit

S Spike Recovery outside limits due to matrix

H Holding times for preparation or analysis exceeded

Narr See case narrative

N Analyte not NELAC certified

F Analyzed in the lab which is a deviation from the method

B Analyte detected in the associated method blank

< Less than Result value

> Greater than Result value

J Estimated value detected below Reporting Limit

Client: Geo-Hydro Engineers, Inc.	Client Sample ID: TRIP BLANK
Project Name: Cedartown Formal Municipal landfill Monitoring	Collection Date: 4/22/2021
Lab ID: 2104Q56-011	Matrix: Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260D (SW5030B)								
trans-1,3-Dichloropropene	BRL	5.0		ug/L	314345	1	04/26/2021 21:22	AV
Trichloroethene	BRL	5.0		ug/L	314345	1	04/26/2021 21:22	AV
Trichlorofluoromethane	BRL	5.0		ug/L	314345	1	04/26/2021 21:22	AV
Vinyl chloride	BRL	2.0		ug/L	314345	1	04/26/2021 21:22	AV
Surr: 4-Bromofluorobenzene	94.8	74.9-127		%REC	314345	1	04/26/2021 21:22	AV
Surr: Dibromofluoromethane	86.3	78.9-121		%REC	314345	1	04/26/2021 21:22	AV
Surr: Toluene-d8	101	81.5-120		%REC	314345	1	04/26/2021 21:22	AV

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 3-May-21

SUMMARY OF ANALYTES DETECTED

Analyses	Result	Qual	Reporting Limit	Units	BatchID	Dilution Factor
Client Sample ID: CL-08-WP			Lab ID:	2104Q56-001		
Collection Date: 4/21/2021 7:00:00 PM			Matrix:	Groundwater		
TCL-SEMOVOLATILE ORGANICS SW8270E			(SW3510C)			
2-Methylnaphthalene	25		10	ug/L	314156	1
TCL VOLATILE ORGANICS SW8260D			(SW5030B)			
Chlorobenzene	5.2		5.0	ug/L	314284	1
Isopropylbenzene	16		5.0	ug/L	314284	1
m,p-Xylene	21		5.0	ug/L	314284	1
METALS, TOTAL SW6010D			(SW3010A)			
Aluminum	2.42		0.200	mg/L	314227	1
Barium	1.31		0.0200	mg/L	314227	1
Calcium	106		0.100	mg/L	314227	1
Chromium	0.0106		0.0100	mg/L	314227	1
Iron	49.0		0.100	mg/L	314227	1
Lead	0.0217		0.0100	mg/L	314227	1
Magnesium	22.7		0.100	mg/L	314227	1
Manganese	1.19		0.0150	mg/L	314227	1
Nickel	0.0309		0.0200	mg/L	314227	1
Potassium	21.8		0.500	mg/L	314227	1
Sodium	37.5		1.00	mg/L	314227	1
Vanadium	0.0105		0.0100	mg/L	314227	1
Zinc	0.0713		0.0200	mg/L	314227	1
ION SCAN SW9056A						
Chloride	27		1.0	mg/L	R453243	1
Sulfate	1.5		1.0	mg/L	R453243	1
HARDNESS SM2340 B			(SM2340B)			
Hardness, Calcium/Magnesium (As CaCO3)	359		1.00	mg/L CaCO3	314227	1
Alkalinity by SM2320B						
Alkalinity, Total (As CaCO3)	572		3.00	mg/L	R453035	1
Client Sample ID: LW-6			Lab ID:	2104Q56-002		
Collection Date: 4/21/2021 5:00:00 PM			Matrix:	Groundwater		
TCL VOLATILE ORGANICS SW8260D			(SW5030B)			
1,4-Dichlorobenzene	6.8		5.0	ug/L	314284	1
Benzene	6.3		5.0	ug/L	314284	1
Chlorobenzene	15		5.0	ug/L	314284	1
METALS, TOTAL SW6010D			(SW3010A)			
Barium	0.130		0.0200	mg/L	314227	1
Calcium	249		0.500	mg/L	314227	5
Iron	22.7		0.100	mg/L	314227	1
Magnesium	19.8		0.500	mg/L	314227	5
Manganese	1.61		0.0150	mg/L	314227	1
Potassium	22.0		0.500	mg/L	314227	1
Sodium	23.4		1.00	mg/L	314227	1
ION SCAN SW9056A						
Chloride	9.6		1.0	mg/L	R453243	1
Sulfate	410		20	mg/L	R453243	20
HARDNESS SM2340 B			(SM2340B)			

Analytical Environmental Services, Inc

Date: 3-May-21

SUMMARY OF ANALYTES DETECTED

Analyses		Result	Qual	Reporting Limit	Units	BatchID	Dilution Factor
Client Sample ID:	LW-6			Lab ID:	2104Q56-002		
Collection Date:	4/21/2021 5:00:00 PM			Matrix:	Groundwater		
HARDNESS	SM2340 B			(SM2340B)			
Hardness, Calcium/Magnesium (As CaCO3)	703			1.00	mg/L CaCO3	314227	1
Alkalinity by SM2320B							
Alkalinity, Total (As CaCO3)	731			3.00	mg/L	R453035	1
Client Sample ID:	OW-3			Lab ID:	2104Q56-003		
Collection Date:	4/21/2021 6:26:00 PM			Matrix:	Groundwater		
METALS, TOTAL	SW6010D			(SW3010A)			
Barium	0.145			0.0200	mg/L	314227	1
Calcium	71.4			0.100	mg/L	314227	1
Iron	3.78			0.100	mg/L	314227	1
Magnesium	6.52			0.100	mg/L	314227	1
Manganese	3.55			0.0150	mg/L	314227	1
Potassium	1.43			0.500	mg/L	314227	1
Sodium	7.19			1.00	mg/L	314227	1
ION SCAN	SW9056A						
Chloride	4.8			1.0	mg/L	R453243	1
Sulfate	29			1.0	mg/L	R453243	1
HARDNESS	SM2340 B			(SM2340B)			
Hardness, Calcium/Magnesium (As CaCO3)	205			1.00	mg/L CaCO3	314227	1
Alkalinity by SM2320B							
Alkalinity, Total (As CaCO3)	254			3.00	mg/L	R452903	1
Client Sample ID:	OW-4			Lab ID:	2104Q56-004		
Collection Date:	4/20/2021 4:06:00 PM			Matrix:	Groundwater		
METALS, TOTAL	SW6010D			(SW3010A)			
Barium	0.0202			0.0200	mg/L	314227	1
Calcium	68.5			0.100	mg/L	314227	1
Iron	13.3			0.100	mg/L	314227	1
Magnesium	43.6			0.100	mg/L	314227	1
Manganese	1.02			0.0150	mg/L	314227	1
Potassium	7.20			0.500	mg/L	314227	1
Sodium	168			1.00	mg/L	314227	1
ION SCAN	SW9056A						
Chloride	8.1			1.0	mg/L	R453243	1
Sulfate	670			20	mg/L	R453243	20
HARDNESS	SM2340 B			(SM2340B)			
Hardness, Calcium/Magnesium (As CaCO3)	350			1.00	mg/L CaCO3	314227	1
Alkalinity by SM2320B							
Alkalinity, Total (As CaCO3)	160			3.00	mg/L	R452903	1
Client Sample ID:	OW-6B			Lab ID:	2104Q56-005		
Collection Date:	4/22/2021 4:15:00 PM			Matrix:	Groundwater		
METALS, TOTAL	SW6010D			(SW3010A)			
Barium	0.0397			0.0200	mg/L	314227	1
Calcium	37.4			0.100	mg/L	314227	1
Iron	6.65			0.100	mg/L	314227	1

Analytical Environmental Services, Inc

Date: 3-May-21

SUMMARY OF ANALYTES DETECTED

Analyses		Result	Qual	Reporting Limit	Units	BatchID	Dilution Factor
Client Sample ID:	OW-6B			Lab ID:	2104Q56-005		
Collection Date:	4/22/2021 4:15:00 PM			Matrix:	Groundwater		
METALS, TOTAL	SW6010D			(SW3010A)			
Magnesium	20.5		0.100	mg/L	314227	1	
Manganese	0.518		0.0150	mg/L	314227	1	
Potassium	1.43		0.500	mg/L	314227	1	
Sodium	1.43		1.00	mg/L	314227	1	
ION SCAN	SW9056A						
Chloride	3.4		1.0	mg/L	R453243	1	
Sulfate	2.9		1.0	mg/L	R453243	1	
HARDNESS	SM2340 B			(SM2340B)			
Hardness, Calcium/Magnesium (As CaCO ₃)	178		1.00	mg/L CaCO ₃	314227	1	
Alkalinity by SM2320B							
Alkalinity, Total (As CaCO ₃)	199		3.00	mg/L	R452903	1	
Client Sample ID:	SW-2			Lab ID:	2104Q56-006		
Collection Date:	4/22/2021 3:20:00 PM			Matrix:	Surface Water		
METALS, TOTAL	SW6010D			(SW3010A)			
Calcium	7.59		0.100	mg/L	314227	1	
Iron	1.47		0.100	mg/L	314227	1	
Magnesium	1.12		0.100	mg/L	314227	1	
Manganese	0.148		0.0150	mg/L	314227	1	
Potassium	1.93		0.500	mg/L	314227	1	
ION SCAN	SW9056A						
Chloride	1.4		1.0	mg/L	R453243	1	
Sulfate	2.2		1.0	mg/L	R453243	1	
HARDNESS	SM2340 B			(SM2340B)			
Hardness, Calcium/Magnesium (As CaCO ₃)	23.6		1.00	mg/L CaCO ₃	314227	1	
Alkalinity by SM2320B							
Alkalinity, Total (As CaCO ₃)	28.5		3.00	mg/L	R452903	1	
Client Sample ID:	SW-3			Lab ID:	2104Q56-007		
Collection Date:	4/20/2021 12:45:00 PM			Matrix:	Surface Water		
METALS, TOTAL	SW6010D			(SW3010A)			
Barium	0.241		0.0200	mg/L	314227	1	
Calcium	35.5		0.100	mg/L	314227	1	
Cobalt	0.0307		0.0200	mg/L	314227	1	
Iron	11.7		0.100	mg/L	314227	1	
Magnesium	6.05		0.100	mg/L	314227	1	
Manganese	5.63		0.0150	mg/L	314227	1	
Nickel	0.0206		0.0200	mg/L	314227	1	
Potassium	3.61		0.500	mg/L	314227	1	
Sodium	4.33		1.00	mg/L	314227	1	
ION SCAN	SW9056A						
Chloride	3.1		1.0	mg/L	R453243	1	
Sulfate	3.8		1.0	mg/L	R453243	1	
HARDNESS	SM2340 B			(SM2340B)			
Hardness, Calcium/Magnesium (As CaCO ₃)	114		1.00	mg/L CaCO ₃	314227	1	

Analytical Environmental Services, Inc

Date: 3-May-21

SUMMARY OF ANALYTES DETECTED

Analyses	Result	Qual	Reporting Limit	Units	BatchID	Dilution Factor
Client Sample ID: SW-3 Collection Date: 4/20/2021 12:45:00 PM			Lab ID: 2104Q56-007 Matrix: Surface Water			
Alkalinity by SM2320B						
Alkalinity, Total (As CaCO3)	151		3.00	mg/L	R452903	1
Client Sample ID: FD-1 Collection Date: 4/20/2021			Lab ID: 2104Q56-008 Matrix: Groundwater			
METALS, TOTAL SW6010D			(SW3010A)			
Barium	0.0216		0.0200	mg/L	314227	1
Calcium	83.3		0.100	mg/L	314227	1
Iron	24.1		0.100	mg/L	314227	1
Magnesium	44.9		0.100	mg/L	314227	1
Manganese	2.26		0.0150	mg/L	314227	1
Potassium	5.20		0.500	mg/L	314227	1
Sodium	177		1.00	mg/L	314227	1
ION SCAN SW9056A						
Chloride	7.4		1.0	mg/L	R453243	1
Sulfate	690		20	mg/L	R453243	20
HARDNESS SM2340 B			(SM2340B)			
Hardness, Calcium/Magnesium (As CaCO3)	405		1.00	mg/L CaCO3	314227	1
Alkalinity by SM2320B						
Alkalinity, Total (As CaCO3)	184		3.00	mg/L	R452903	1
Client Sample ID: FD-2 Collection Date: 4/21/2021			Lab ID: 2104Q56-009 Matrix: Groundwater			
TCL VOLATILE ORGANICS SW8260D			(SW5030B)			
1,4-Dichlorobenzene	6.2		5.0	ug/L	314345	1
Benzene	6.6		5.0	ug/L	314345	1
Chlorobenzene	15		5.0	ug/L	314345	1
METALS, TOTAL SW6010D			(SW3010A)			
Barium	0.132		0.0200	mg/L	314227	1
Calcium	245		0.500	mg/L	314227	5
Iron	22.8		0.100	mg/L	314227	1
Magnesium	19.9		0.500	mg/L	314227	5
Manganese	1.55		0.0150	mg/L	314227	1
Potassium	22.3		0.500	mg/L	314227	1
Sodium	23.8		1.00	mg/L	314227	1
Zinc	0.0271		0.0200	mg/L	314227	1
ION SCAN SW9056A						
Chloride	9.5		1.0	mg/L	R453243	1
Sulfate	420		20	mg/L	R453243	20
HARDNESS SM2340 B			(SM2340B)			
Hardness, Calcium/Magnesium (As CaCO3)	694		1.00	mg/L CaCO3	314227	1
Alkalinity by SM2320B						
Alkalinity, Total (As CaCO3)	727		3.00	mg/L	R453035	1
Client Sample ID: FD-3 Collection Date: 4/22/2021			Lab ID: 2104Q56-010 Matrix: Groundwater			
METALS, TOTAL SW6010D			(SW3010A)			

Analytical Environmental Services, Inc

Date: 3-May-21

SUMMARY OF ANALYTES DETECTED

Analyses		Result	Qual	Reporting Limit	Units	BatchID	Dilution Factor
Client Sample ID:	FD-3			Lab ID:	2104Q56-010		
Collection Date:	4/22/2021			Matrix:	Groundwater		
METALS, TOTAL	SW6010D			(SW3010A)			
Barium	0.0394			0.0200	mg/L	314227	1
Calcium	36.4			0.100	mg/L	314227	1
Iron	5.58			0.100	mg/L	314227	1
Magnesium	20.2			0.100	mg/L	314227	1
Manganese	0.502			0.0150	mg/L	314227	1
Potassium	1.27			0.500	mg/L	314227	1
Sodium	1.42			1.00	mg/L	314227	1
ION SCAN	SW9056A						
Chloride	4.4			1.0	mg/L	R453243	1
Sulfate	3.2			1.0	mg/L	R453243	1
HARDNESS	SM2340 B			(SM2340B)			
Hardness, Calcium/Magnesium (As CaCO3)	174			1.00	mg/L CaCO3	314227	1
Alkalinity by SM2320B							
Alkalinity, Total (As CaCO3)	197			3.00	mg/L	R452903	1

Qualifiers: * Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

> Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative

F Analyzed in the lab which is a deviation from the method

< Less than Result value

J Estimated value detected below Reporting Limit

SAMPLE/COOLER RECEIPT CHECKLIST
1. Client Name: **Geo-Hydro Engineers, Inc.**AES Work Order Number: **2104Q56**2. Carrier: FedEx UPS USPS Client Courier Other _____

	Yes	No	N/A	Details	Comments
3. Shipping container/cooler received in good condition?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	damaged <input type="checkbox"/> leaking <input type="checkbox"/> other <input type="checkbox"/>	
4. Custody seals present on shipping container?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
5. Custody seals intact on shipping container?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
6. Temperature blanks present?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
7. Cooler temperature(s) within limits of 0-6°C? [See item 13 and 14 for temperature recordings.]	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	Cooling initiated for recently collected samples / ice present <input type="checkbox"/>	
8. Chain of Custody (COC) present?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
9. Chain of Custody signed, dated, and timed when relinquished and received?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
10. Sampler name and/or signature on COC?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
11. Were all samples received within holding time?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
12. TAT marked on the COC?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	If no TAT indicated, proceed with standard TAT per Terms & Conditions. <input type="checkbox"/>	

13. Cooler 1 Temperature 4.5 °C Cooler 2 Temperature 0.6 °C Cooler 3 Temperature 0.4 °C Cooler 4 Temperature 1.4 °C

14. Cooler 5 Temperature _____ °C Cooler 6 Temperature _____ °C Cooler 7 Temperature _____ °C Cooler 8 Temperature _____ °C

15. Comments: _____

I certify that I have completed sections 1-15 (dated initials).

CP 4/22/21

	Yes	No	N/A	Details	Comments
16. Were sample containers intact upon receipt?	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>		
17. Custody seals present on sample containers?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
18. Custody seals intact on sample containers?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
19. Do sample container labels match the COC?	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	incomplete info <input type="checkbox"/> illegible <input type="checkbox"/> no label <input type="checkbox"/> other <input checked="" type="checkbox"/>	
20. Are analyses requested indicated on the COC?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
21. Were all of the samples listed on the COC received?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	samples received but not listed on COC <input type="checkbox"/> samples listed on COC not received <input type="checkbox"/>	
22. Was the sample collection date/time noted?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
23. Did we receive sufficient sample volume for indicated analyses?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
24. Were samples received in appropriate containers?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
25. Were VOA samples received without headspace (< 1/4" bubble)?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
26. Were trip blanks submitted?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	listed on COC <input checked="" type="checkbox"/> not listed on COC <input type="checkbox"/>	

27. Comments: _____

This section only applies to samples where pH can be checked at Sample Receipt.

I certify that I have completed sections 16-27 (dated initials).

EDB 4/23/21

	Yes	No	N/A	Details	Comments
28. Have containers needing chemical preservation been checked? *	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
29. Containers meet preservation guidelines?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
30. Was pH adjusted at Sample Receipt?	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>		

* Note: Certain analyses require chemical preservation but must be checked in the laboratory and not upon Sample Receipt such as Coliforms, VOCs and Oil & Grease/TPH.

This also excludes metals by EPA 200.7, 200.8 and 245.1 which will be verified between 16 and 24 hours after preservation.

I certify that I have completed sections 28-30 (dated initials).

EDB 4/23/21

AES, Inc.
3080 Presidential Dr.
Atlanta, GA 30340

Sample pH Adjustment Sheet

AES Sample ID	Sample Volume (mL)	Test(s) Requested	Department	pH Required	pH as Rec.	Preservative Required	Preservative Lot#	Amount Added		pH after Add.	Initials	Date	Time (Military)
								mL of Acid	NaOH Pellets				
2104Q56 -001C	260	6010	Metals	<2	6	HNO ₃	3000L	0.5		1	SA	4/26/21	13:33
Notes:													
2104Q56 -009C	260	6010	Metals	<2	6	HNO ₃	3000L	0.5		1	SA	4/26/21	13:33
Notes:													
Notes:													
Notes:													
Notes:													
Notes:													
Notes:													

Client: Geo-Hydro Engineers, Inc.
Project Name: Cedartown Formal Municipal landfill Monitoring
Workorder: 2104Q56

ANALYTICAL QC SUMMARY REPORT
BatchID: 312722

Sample ID: MB-312722	Client ID:				Units: ug/L	Prep Date: 04/28/2021	Run No: 453137
SampleType: MBLK	TestCode: CHLORINATED PESTICIDES, TCL SW8081B				BatchID: 312722	Analysis Date: 04/28/2021	Seq No: 10357818
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit
4,4'-DDD	BRL	0.10					
4,4'-DDE	BRL	0.10					
4,4'-DDT	BRL	0.10					
Aldrin	BRL	0.050					
alpha-BHC	BRL	0.050					
alpha-Chlordane	BRL	0.050					
beta-BHC	BRL	0.050					
delta-BHC	BRL	0.050					
Dieldrin	BRL	0.10					
Endosulfan I	BRL	0.050					
Endosulfan II	BRL	0.10					
Endosulfan sulfate	BRL	0.10					
Endrin	BRL	0.10					
Endrin aldehyde	BRL	0.10					
Endrin ketone	BRL	0.10					
gamma-BHC	BRL	0.050					
gamma-Chlordane	BRL	0.050					
Heptachlor	BRL	0.050					
Heptachlor epoxide	BRL	0.050					
Methoxychlor	BRL	0.50					
Toxaphene	BRL	5.0					
Surr: Decachlorobiphenyl	0.3104	0	0.5000		62.1	22.9	130
Surr: Tetrachloro-m-xylene	0.4078	0	0.5000		81.6	37.9	130

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Geo-Hydro Engineers, Inc.
Project Name: Cedartown Formal Municipal landfill Monitoring
Workorder: 2104Q56

ANALYTICAL QC SUMMARY REPORT**BatchID: 312722**

Sample ID: LCS-312722	Client ID:				Units: ug/L	Prep Date: 04/28/2021	Run No: 453137				
SampleType: LCS	TestCode: CHLORINATED PESTICIDES, TCL SW8081B				BatchID: 312722	Analysis Date: 04/28/2021	Seq No: 10357819				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
4,4'-DDT	1.042	0.10	1.000		104	61	127				
Aldrin	0.9769	0.050	1.000		97.7	60.6	118				
Dieldrin	0.9752	0.10	1.000		97.5	66.8	130				
Endrin	1.061	0.10	1.000		106	72.2	135				
gamma-BHC	1.064	0.050	1.000		106	70.2	129				
Heptachlor	1.032	0.050	1.000		103	65.1	131				
Surr: Decachlorobiphenyl	0.2943	0	0.5000		58.9	22.9	130				
Surr: Tetrachloro-m-xylene	0.4104	0	0.5000		82.1	37.9	130				

Sample ID: 2104T02-001CMS	Client ID:				Units: ug/L	Prep Date: 04/28/2021	Run No: 453137				
SampleType: MS	TestCode: CHLORINATED PESTICIDES, TCL SW8081B				BatchID: 312722	Analysis Date: 04/28/2021	Seq No: 10357821				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
4,4'-DDT	0.9469	0.10	1.000		94.7	42.4	138				
Aldrin	0.8691	0.050	1.000		86.9	46.4	119				
Dieldrin	0.8651	0.10	1.000		86.5	44.9	138				
Endrin	0.9619	0.10	1.000		96.2	58	140				
gamma-BHC	0.9585	0.050	1.000		95.8	56.5	137				
Heptachlor	0.9218	0.050	1.000		92.2	43.6	134				
Surr: Decachlorobiphenyl	0.3156	0	0.5000		63.1	22.9	130				
Surr: Tetrachloro-m-xylene	0.3789	0	0.5000		75.8	37.9	130				

Sample ID: 2104T02-001CMSP	Client ID:				Units: ug/L	Prep Date: 04/28/2021	Run No: 453137				
SampleType: MSD	TestCode: CHLORINATED PESTICIDES, TCL SW8081B				BatchID: 312722	Analysis Date: 04/28/2021	Seq No: 10357822				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
4,4'-DDT	0.9753	0.10	1.000		97.5	42.4	138	0.9469	2.95	20	
Aldrin	0.8877	0.050	1.000		88.8	46.4	119	0.8691	2.12	20	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL		Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J		Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim		Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Geo-Hydro Engineers, Inc.
Project Name: Cedartown Formal Municipal landfill Monitoring
Workorder: 2104Q56

ANALYTICAL QC SUMMARY REPORT**BatchID: 312722**

Sample ID: 2104T02-001CMSD	Client ID:				Units: ug/L	Prep Date: 04/28/2021	Run No: 453137				
SampleType: MSD	TestCode: CHLORINATED PESTICIDES, TCL SW8081B				BatchID: 312722	Analysis Date: 04/28/2021	Seq No: 10357822				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Dieldrin	0.8903	0.10	1.000		89.0	44.9	138	0.8651	2.88	20	
Endrin	0.9850	0.10	1.000		98.5	58	140	0.9619	2.38	20	
gamma-BHC	0.9791	0.050	1.000		97.9	56.5	137	0.9585	2.13	20	
Heptachlor	0.9449	0.050	1.000		94.5	43.6	134	0.9218	2.47	21.3	
Surr: Decachlorobiphenyl	0.3203	0	0.5000		64.1	22.9	130	0.3156	0	0	
Surr: Tetrachloro-m-xylene	0.3769	0	0.5000		75.4	37.9	130	0.3789	0	0	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Geo-Hydro Engineers, Inc.
Project Name: Cedartown Formal Municipal landfill Monitoring
Workorder: 2104Q56

ANALYTICAL QC SUMMARY REPORT**BatchID: 314128**

Sample ID: MB-314128	Client ID:				Units: ug/L	Prep Date: 04/26/2021	Run No: 452853				
SampleType: MBLK	TestCode: CHLORINATED PESTICIDES, TCL SW8081B				BatchID: 314128	Analysis Date: 04/26/2021	Seq No: 10349731				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
4,4'-DDD	BRL	0.10									
4,4'-DDE	BRL	0.10									
4,4'-DDT	BRL	0.10									
Aldrin	BRL	0.050									
alpha-BHC	BRL	0.050									
alpha-Chlordane	BRL	0.050									
beta-BHC	BRL	0.050									
delta-BHC	BRL	0.050									
Dieldrin	BRL	0.10									
Endosulfan I	BRL	0.050									
Endosulfan II	BRL	0.10									
Endosulfan sulfate	BRL	0.10									
Endrin	BRL	0.10									
Endrin aldehyde	BRL	0.10									
Endrin ketone	BRL	0.10									
gamma-BHC	BRL	0.050									
gamma-Chlordane	BRL	0.050									
Heptachlor	BRL	0.050									
Heptachlor epoxide	BRL	0.050									
Methoxychlor	BRL	0.50									
Toxaphene	BRL	5.0									
Surr: Decachlorobiphenyl	0.3159	0	0.5000		63.2	22.9	130				
Surr: Tetrachloro-m-xylene	0.3442	0	0.5000		68.8	37.9	130				

Sample ID: LCS-314128	Client ID:				Units: ug/L	Prep Date: 04/26/2021	Run No: 452853				
SampleType: LCS	TestCode: CHLORINATED PESTICIDES, TCL SW8081B				BatchID: 314128	Analysis Date: 04/26/2021	Seq No: 10349732				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Geo-Hydro Engineers, Inc.
Project Name: Cedartown Formal Municipal landfill Monitoring
Workorder: 2104Q56

ANALYTICAL QC SUMMARY REPORT**BatchID: 314128**

Sample ID: LCS-314128	Client ID:				Units: ug/L	Prep Date: 04/26/2021	Run No: 452853				
SampleType: LCS	TestCode: CHLORINATED PESTICIDES, TCL SW8081B				BatchID: 314128	Analysis Date: 04/26/2021	Seq No: 10349732				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
4,4'-DDT	0.9851	0.10	1.000		98.5	61	127				
Aldrin	0.8820	0.050	1.000		88.2	60.6	118				
Dieldrin	0.9675	0.10	1.000		96.8	66.8	130				
Endrin	1.050	0.10	1.000		105	72.2	135				
gamma-BHC	1.030	0.050	1.000		103	70.2	129				
Heptachlor	0.9184	0.050	1.000		91.8	65.1	131				
Surr: Decachlorobiphenyl	0.2960	0	0.5000		59.2	22.9	130				
Surr: Tetrachloro-m-xylene	0.3600	0	0.5000		72.0	37.9	130				

Sample ID: 2104O88-005FMS	Client ID:				Units: ug/L	Prep Date: 04/26/2021	Run No: 452853				
SampleType: MS	TestCode: CHLORINATED PESTICIDES, TCL SW8081B				BatchID: 314128	Analysis Date: 04/26/2021	Seq No: 10349820				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
4,4'-DDT	0.7859	0.10	1.000		78.6	42.4	138				
Aldrin	0.7914	0.050	1.000		79.1	46.4	119				
Dieldrin	0.8178	0.10	1.000		81.8	44.9	138				
Endrin	0.9229	0.10	1.000		92.3	58	140				
gamma-BHC	1.011	0.050	1.000		101	56.5	137				
Heptachlor	0.8434	0.050	1.000	0.03367	81.0	43.6	134				
Surr: Decachlorobiphenyl	0.2101	0	0.5000		42.0	22.9	130				
Surr: Tetrachloro-m-xylene	0.2801	0	0.5000		56.0	37.9	130				

Sample ID: 2104O88-005FMSD	Client ID:				Units: ug/L	Prep Date: 04/26/2021	Run No: 452853				
SampleType: MSD	TestCode: CHLORINATED PESTICIDES, TCL SW8081B				BatchID: 314128	Analysis Date: 04/26/2021	Seq No: 10349822				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
4,4'-DDT	0.7476	0.10	1.000		74.8	42.4	138	0.7859	4.99	20	
Aldrin	0.7680	0.050	1.000		76.8	46.4	119	0.7914	3.01	20	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL		Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J		Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim		Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Geo-Hydro Engineers, Inc.
Project Name: Cedartown Formal Municipal landfill Monitoring
Workorder: 2104Q56

ANALYTICAL QC SUMMARY REPORT**BatchID: 314128**

Sample ID: 2104O88-005FMSD	Client ID:				Units: ug/L	Prep Date: 04/26/2021	Run No: 452853				
SampleType: MSD	TestCode: CHLORINATED PESTICIDES, TCL SW8081B				BatchID: 314128	Analysis Date: 04/26/2021	Seq No: 10349822				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Dieldrin	0.7740	0.10	1.000		77.4	44.9	138	0.8178	5.50	20	
Endrin	0.8757	0.10	1.000		87.6	58	140	0.9229	5.25	20	
gamma-BHC	0.9574	0.050	1.000		95.7	56.5	137	1.011	5.49	20	
Heptachlor	0.8127	0.050	1.000	0.03367	77.9	43.6	134	0.8434	3.70	21.3	
Surr: Decachlorobiphenyl	0.2126	0	0.5000		42.5	22.9	130	0.2101	0	0	
Surr: Tetrachloro-m-xylene	0.2926	0	0.5000		58.5	37.9	130	0.2801	0	0	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Geo-Hydro Engineers, Inc.
Project Name: Cedartown Formal Municipal landfill Monitoring
Workorder: 2104Q56

ANALYTICAL QC SUMMARY REPORT**BatchID: 314156**

Sample ID: MB-314156	Client ID:	Units: ug/L			Prep Date:	04/26/2021	Run No:	452762			
SampleType: MBLK	TestCode: TCL-SEMOVOLATILE ORGANICS SW8270E	BatchID: 314156			Analysis Date:	04/26/2021	Seq No:	10348500			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1'-Biphenyl	BRL	10									
2,4,5-Trichlorophenol	BRL	25									
2,4,6-Trichlorophenol	BRL	10									
2,4-Dichlorophenol	BRL	10									
2,4-Dimethylphenol	BRL	10									
2,4-Dinitrophenol	BRL	25									
2,4-Dinitrotoluene	BRL	10									
2,6-Dinitrotoluene	BRL	10									
2-Chloronaphthalene	BRL	10									
2-Chlorophenol	BRL	10									
2-Methylnaphthalene	BRL	10									
2-Methylphenol	BRL	10									
2-Nitroaniline	BRL	25									
2-Nitrophenol	BRL	10									
3,3'-Dichlorobenzidine	BRL	10									
3-Nitroaniline	BRL	25									
4,6-Dinitro-2-methylphenol	BRL	25									
4-Bromophenyl phenyl ether	BRL	10									
4-Chloro-3-methylphenol	BRL	10									
4-Chloroaniline	BRL	10									
4-Chlorophenyl phenyl ether	BRL	10									
4-Methylphenol	BRL	10									
4-Nitroaniline	BRL	25									
4-Nitrophenol	BRL	25									
Acenaphthene	BRL	10									
Acenaphthylene	BRL	10									
Acetophenone	BRL	10									

Qualifiers: > Greater than Result value

< Less than Result value

B Analyte detected in the associated method blank

BRL Below reporting limit

E Estimated (value above quantitation range)

H Holding times for preparation or analysis exceeded

J Estimated value detected below Reporting Limit

N Analyte not NELAC certified

R RPD outside limits due to matrix

Rpt Lim Reporting Limit

S Spike Recovery outside limits due to matrix

Client: Geo-Hydro Engineers, Inc.
Project Name: Cedartown Formal Municipal landfill Monitoring
Workorder: 2104Q56

ANALYTICAL QC SUMMARY REPORT**BatchID: 314156**

Sample ID: MB-314156	Client ID:	Units: ug/L			Prep Date: 04/26/2021	Run No: 452762					
SampleType: MBLK	TestCode: TCL-SEMOVOLATILE ORGANICS SW8270E	BatchID: 314156			Analysis Date: 04/26/2021	Seq No: 10348500					
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Anthracene	BRL	10									
Atrazine	BRL	10									
Benz(a)anthracene	BRL	10									
Benzaldehyde	BRL	10									
Benzo(a)pyrene	BRL	10									
Benzo(b)fluoranthene	BRL	10									
Benzo(g,h,i)perylene	BRL	10									
Benzo(k)fluoranthene	BRL	10									
Bis(2-chloroethoxy)methane	BRL	10									
Bis(2-chloroethyl)ether	BRL	10									
Bis(2-chloroisopropyl)ether	BRL	10									
Bis(2-ethylhexyl)phthalate	BRL	10									
Butyl benzyl phthalate	BRL	10									
Caprolactam	BRL	10									
Carbazole	BRL	10									
Chrysene	BRL	10									
Di-n-butyl phthalate	BRL	10									
Di-n-octyl phthalate	BRL	10									
Dibenz(a,h)anthracene	BRL	10									
Dibenzofuran	BRL	10									
Diethyl phthalate	BRL	10									
Dimethyl phthalate	BRL	10									
Fluoranthene	BRL	10									
Fluorene	BRL	10									
Hexachlorobenzene	BRL	10									
Hexachlorobutadiene	BRL	10									
Hexachlorocyclopentadiene	BRL	10									

Qualifiers: > Greater than Result value

< Less than Result value

B Analyte detected in the associated method blank

BRL Below reporting limit

E Estimated (value above quantitation range)

H Holding times for preparation or analysis exceeded

J Estimated value detected below Reporting Limit

N Analyte not NELAC certified

R RPD outside limits due to matrix

Rpt Lim Reporting Limit

S Spike Recovery outside limits due to matrix

Client: Geo-Hydro Engineers, Inc.
Project Name: Cedartown Formal Municipal landfill Monitoring
Workorder: 2104Q56

ANALYTICAL QC SUMMARY REPORT**BatchID: 314156**

Sample ID: MB-314156	Client ID:				Units: ug/L	Prep Date: 04/26/2021	Run No: 452762				
SampleType: MBLK	TestCode: TCL-SEMOVOLATILE ORGANICS SW8270E				BatchID: 314156	Analysis Date: 04/26/2021	Seq No: 10348500				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Hexachloroethane	BRL	10									
Indeno(1,2,3-cd)pyrene	BRL	10									
Isophorone	BRL	10									
N-Nitrosodi-n-propylamine	BRL	10									
N-Nitrosodiphenylamine	BRL	10									
Naphthalene	BRL	10									
Nitrobenzene	BRL	10									
Pentachlorophenol	BRL	25									
Phenanthrene	BRL	10									
Phenol	BRL	10									
Pyrene	BRL	10									
Surr: 2,4,6-Tribromophenol	89.16	0	100.0		89.2	47	127				
Surr: 2-Fluorobiphenyl	45.97	0	50.00		91.9	47.4	119				
Surr: 2-Fluorophenol	58.73	0	100.0		58.7	26.2	120				
Surr: 4-Terphenyl-d14	50.64	0	50.00		101	45	133				
Surr: Nitrobenzene-d5	44.34	0	50.00		88.7	41.9	121				
Surr: Phenol-d5	41.86	0	100.0		41.9	17.8	120				

Sample ID: LCS-314156	Client ID:				Units: ug/L	Prep Date: 04/26/2021	Run No: 452762				
SampleType: LCS	TestCode: TCL-SEMOVOLATILE ORGANICS SW8270E				BatchID: 314156	Analysis Date: 04/26/2021	Seq No: 10348509				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
2,4-Dinitrotoluene	77.38	10	100.0		77.4	60.1	123				
2-Chlorophenol	78.36	10	100.0		78.4	50.6	120				
4-Chloro-3-methylphenol	83.58	10	100.0		83.6	59.5	122				
4-Nitrophenol	41.57	25	100.0		41.6	20	120				
Acenaphthene	88.90	10	100.0		88.9	60.5	119				
N-Nitrosodi-n-propylamine	84.02	10	100.0		84.0	62.3	127				

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Geo-Hydro Engineers, Inc.
Project Name: Cedartown Formal Municipal landfill Monitoring
Workorder: 2104Q56

ANALYTICAL QC SUMMARY REPORT**BatchID: 314156**

Sample ID: LCS-314156	Client ID:	Units: ug/L			Prep Date:	04/26/2021	Run No:	452762			
SampleType: LCS	TestCode: TCL-SEMOVOLATILE ORGANICS SW8270E	BatchID: 314156			Analysis Date:	04/26/2021	Seq No:	10348509			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Pentachlorophenol	80.23	25	100.0		80.2	50.9	120				
Phenol	38.85	10	100.0		38.8	20.1	120				
Pyrene	94.06	10	100.0		94.1	68.8	139				
Surr: 2,4,6-Tribromophenol	92.07	0	100.0		92.1	47	127				
Surr: 2-Fluorobiphenyl	47.97	0	50.00		95.9	47.4	119				
Surr: 2-Fluorophenol	60.75	0	100.0		60.8	26.2	120				
Surr: 4-Terphenyl-d14	52.13	0	50.00		104	45	133				
Surr: Nitrobenzene-d5	44.82	0	50.00		89.6	41.9	121				
Surr: Phenol-d5	42.97	0	100.0		43.0	17.8	120				

Sample ID: 2104Q78-007BMS	Client ID:	Units: ug/L			Prep Date:	04/26/2021	Run No:	452762			
SampleType: MS	TestCode: TCL-SEMOVOLATILE ORGANICS SW8270E	BatchID: 314156			Analysis Date:	04/26/2021	Seq No:	10349206			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
2,4-Dinitrotoluene	66.96	10	100.0		67.0	50.3	123				
2-Chlorophenol	61.31	10	100.0		61.3	50.8	120				
4-Chloro-3-methylphenol	69.15	10	100.0		69.2	47.1	124				
4-Nitrophenol	37.35	25	100.0		37.4	21.8	120				
Acenaphthene	66.54	10	100.0		66.5	44.7	119				
N-Nitrosodi-n-propylamine	66.53	10	100.0		66.5	52.1	120				
Pentachlorophenol	74.01	25	100.0		74.0	40	120				
Phenol	32.08	10	100.0		32.1	31.5	120				
Pyrene	66.48	10	100.0		66.5	51	129				
Surr: 2,4,6-Tribromophenol	79.45	0	100.0		79.4	47	127				
Surr: 2-Fluorobiphenyl	34.87	0	50.00		69.7	47.4	119				
Surr: 2-Fluorophenol	44.65	0	100.0		44.6	26.2	120				
Surr: 4-Terphenyl-d14	36.56	0	50.00		73.1	45	133				
Surr: Nitrobenzene-d5	34.94	0	50.00		69.9	41.9	121				

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Geo-Hydro Engineers, Inc.
Project Name: Cedartown Formal Municipal landfill Monitoring
Workorder: 2104Q56

ANALYTICAL QC SUMMARY REPORT**BatchID: 314156**

Sample ID: 2104Q78-007BMS	Client ID:	Units: ug/L			Prep Date:	04/26/2021	Run No:	452762
SampleType: MS	TestCode: TCL-SEMOVOLATILE ORGANICS SW8270E	BatchID: 314156			Analysis Date:	04/26/2021	Seq No:	10349206
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val
Surf: Phenol-d5	33.42	0	100.0		33.4	17.8	120	
Sample ID: 2104Q78-007BMSD	Client ID:	Units: ug/L			Prep Date:	04/26/2021	Run No:	452762
SampleType: MSD	TestCode: TCL-SEMOVOLATILE ORGANICS SW8270E	BatchID: 314156			Analysis Date:	04/26/2021	Seq No:	10349207
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val
2,4-Dinitrotoluene	68.04	10	100.0		68.0	50.3	123	66.96
2-Chlorophenol	64.74	10	100.0		64.7	50.8	120	61.31
4-Chloro-3-methylphenol	70.68	10	100.0		70.7	47.1	124	69.15
4-Nitrophenol	42.63	25	100.0		42.6	21.8	120	37.35
Acenaphthene	66.47	10	100.0		66.5	44.7	119	66.54
N-Nitrosodi-n-propylamine	69.56	10	100.0		69.6	52.1	120	66.53
Pentachlorophenol	73.47	25	100.0		73.5	40	120	74.01
Phenol	38.18	10	100.0		38.2	31.5	120	32.08
Pyrene	66.19	10	100.0		66.2	51	129	66.48
Surf: 2,4,6-Tribromophenol	78.60	0	100.0		78.6	47	127	79.45
Surf: 2-Fluorobiphenyl	34.32	0	50.00		68.6	47.4	119	34.87
Surf: 2-Fluorophenol	50.11	0	100.0		50.1	26.2	120	44.65
Surf: 4-Terphenyl-d14	35.78	0	50.00		71.6	45	133	36.56
Surf: Nitrobenzene-d5	35.47	0	50.00		70.9	41.9	121	34.94
Surf: Phenol-d5	38.72	0	100.0		38.7	17.8	120	33.42

Qualifiers: > Greater than Result value
 BRL Below reporting limit
 J Estimated value detected below Reporting Limit
 Rpt Lim Reporting Limit

< Less than Result value
 E Estimated (value above quantitation range)
 N Analyte not NELAC certified
 S Spike Recovery outside limits due to matrix

B Analyte detected in the associated method blank
 H Holding times for preparation or analysis exceeded
 R RPD outside limits due to matrix

Client: Geo-Hydro Engineers, Inc.
Project Name: Cedartown Formal Municipal landfill Monitoring
Workorder: 2104Q56

ANALYTICAL QC SUMMARY REPORT**BatchID: 314187**

Sample ID: MB-314187	Client ID:				Units: ug/L	Prep Date: 04/26/2021	Run No: 452854				
SampleType: MBLK	TestCode: POLYCHLORINATED BIPHENYLS SW8082A				BatchID: 314187	Analysis Date: 04/26/2021	Seq No: 10350076				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Aroclor 1016	BRL	0.50									
Aroclor 1221	BRL	0.50									
Aroclor 1232	BRL	0.50									
Aroclor 1242	BRL	0.50									
Aroclor 1248	BRL	0.50									
Aroclor 1254	BRL	0.50									
Aroclor 1260	BRL	0.50									
Surr: Decachlorobiphenyl	0.3270	0	0.5000		65.4	30	120				
Surr: Tetrachloro-m-xylene	0.3594	0	0.5000		71.9	46.5	120				

Sample ID: LCS-314187	Client ID:				Units: ug/L	Prep Date: 04/26/2021	Run No: 452854				
SampleType: LCS	TestCode: POLYCHLORINATED BIPHENYLS SW8082A				BatchID: 314187	Analysis Date: 04/27/2021	Seq No: 10350107				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Aroclor 1016	4.181	0.50	5.000		83.6	73.2	118				
Aroclor 1260	4.119	0.50	5.000		82.4	60	120				
Surr: Decachlorobiphenyl	0.2847	0	0.5000		56.9	30	120				
Surr: Tetrachloro-m-xylene	0.3417	0	0.5000		68.3	46.5	120				

Sample ID: 2104O88-003FMS	Client ID:				Units: ug/L	Prep Date: 04/26/2021	Run No: 452854				
SampleType: MS	TestCode: POLYCHLORINATED BIPHENYLS SW8082A				BatchID: 314187	Analysis Date: 04/27/2021	Seq No: 10350108				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Aroclor 1016	3.651	0.50	5.000		73.0	60.4	127				
Aroclor 1260	3.482	0.50	5.000		69.6	51	121				
Surr: Decachlorobiphenyl	0.2657	0	0.5000		53.1	30	120				
Surr: Tetrachloro-m-xylene	0.4522	0	0.5000		90.4	46.5	120				

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Geo-Hydro Engineers, Inc.
Project Name: Cedartown Formal Municipal landfill Monitoring
Workorder: 2104Q56

ANALYTICAL QC SUMMARY REPORT**BatchID: 314187**

Sample ID: 2104O88-003FMSD	Client ID:	Units: ug/L			Prep Date:	04/26/2021	Run No:	452854
SampleType: MSD	TestCode: POLYCHLORINATED BIPHENYLS SW8082A	BatchID: 314187			Analysis Date:	04/27/2021	Seq No:	10350109
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val
Aroclor 1016	3.276	0.50	5.000		65.5	60.4	127	3.651
Aroclor 1260	3.101	0.50	5.000		62.0	51	121	3.482
Surr: Decachlorobiphenyl	0.2326	0	0.5000		46.5	30	120	0.2657
Surr: Tetrachloro-m-xylene	0.4788	0	0.5000		95.8	46.5	120	0.4522

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Geo-Hydro Engineers, Inc.
Project Name: Cedartown Formal Municipal landfill Monitoring
Workorder: 2104Q56

ANALYTICAL QC SUMMARY REPORT**BatchID: 314227**

Sample ID: MB-314227	Client ID:				Units: mg/L	Prep Date: 04/26/2021	Run No: 452866				
SampleType: MBLK	TestCode: METALS, TOTAL SW6010D				BatchID: 314227	Analysis Date: 04/27/2021	Seq No: 10350741				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Aluminum	BRL	0.200									
Antimony	BRL	0.0200									
Arsenic	BRL	0.0500									
Barium	BRL	0.0200									
Beryllium	BRL	0.0100									
Cadmium	BRL	0.0050									
Calcium	BRL	0.100									
Chromium	BRL	0.0100									
Cobalt	BRL	0.0200									
Copper	BRL	0.0100									
Iron	BRL	0.100									
Lead	BRL	0.0100									
Magnesium	BRL	0.100									
Manganese	BRL	0.0150									
Nickel	BRL	0.0200									
Potassium	BRL	0.500									
Selenium	BRL	0.0200									
Silver	BRL	0.0100									
Sodium	BRL	1.00									
Thallium	BRL	0.0200									
Vanadium	BRL	0.0100									
Zinc	BRL	0.0200									

Sample ID: LCS-314227	Client ID:				Units: mg/L	Prep Date: 04/26/2021	Run No: 452866				
SampleType: LCS	TestCode: METALS, TOTAL SW6010D				BatchID: 314227	Analysis Date: 04/27/2021	Seq No: 10350742				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Aluminum	10.62	0.200	10.00		106	80	120				
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Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Geo-Hydro Engineers, Inc.
Project Name: Cedartown Formal Municipal landfill Monitoring
Workorder: 2104Q56

ANALYTICAL QC SUMMARY REPORT**BatchID: 314227**

Sample ID: LCS-314227	Client ID: 	Units: mg/L	Prep Date: 04/26/2021	Run No: 452866							
SampleType: LCS	TestCode: METALS, TOTAL SW6010D	BatchID: 314227	Analysis Date: 04/27/2021	Seq No: 10350742							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Antimony	1.075	0.0200	1.000		107	80	120				
Arsenic	1.069	0.0500	1.000		107	80	120				
Barium	1.061	0.0200	1.000		106	80	120				
Beryllium	1.066	0.0100	1.000		107	80	120				
Cadmium	1.069	0.0050	1.000		107	80	120				
Calcium	10.58	0.100	10.00		106	80	120				
Chromium	1.069	0.0100	1.000		107	80	120				
Cobalt	1.072	0.0200	1.000		107	80	120				
Copper	1.061	0.0100	1.000		106	80	120				
Iron	10.67	0.100	10.00		107	80	120				
Lead	1.070	0.0100	1.000		107	80	120				
Magnesium	10.71	0.100	10.00		107	80	120				
Manganese	1.069	0.0150	1.000		107	80	120				
Nickel	1.072	0.0200	1.000		107	80	120				
Potassium	9.973	0.500	10.00		99.7	80	120				
Selenium	1.073	0.0200	1.000		107	80	120				
Silver	0.1054	0.0100	0.1000		105	80	120				
Sodium	10.23	1.00	10.00		102	80	120				
Thallium	1.060	0.0200	1.000		106	80	120				
Vanadium	1.066	0.0100	1.000		107	80	120				
Zinc	1.087	0.0200	1.000		109	80	120				

Sample ID: 2104Q56-003CMS	Client ID: OW-3	Units: mg/L	Prep Date: 04/26/2021	Run No: 452866							
SampleType: MS	TestCode: METALS, TOTAL SW6010D	BatchID: 314227	Analysis Date: 04/27/2021	Seq No: 10350744							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Aluminum	10.56	0.200	10.00		106	75	125				
Antimony	1.054	0.0200	1.000		105	75	125				

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Geo-Hydro Engineers, Inc.
Project Name: Cedartown Formal Municipal landfill Monitoring
Workorder: 2104Q56

ANALYTICAL QC SUMMARY REPORT**BatchID: 314227**

Sample ID: 2104Q56-003CMS	Client ID: OW-3				Units: mg/L	Prep Date: 04/26/2021	Run No: 452866				
SampleType: MS	TestCode: METALS, TOTAL SW6010D				BatchID: 314227	Analysis Date: 04/27/2021	Seq No: 10350744				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	1.050	0.0500	1.000		105	75	125				
Barium	1.146	0.0200	1.000	0.1454	100	75	125				
Beryllium	1.038	0.0100	1.000		104	75	125				
Cadmium	1.045	0.0050	1.000		105	75	125				
Calcium	80.75	0.100	10.00	71.38	93.8	75	125				
Chromium	1.029	0.0100	1.000		103	75	125				
Cobalt	1.033	0.0200	1.000	0.01990	101	75	125				
Copper	1.056	0.0100	1.000		106	75	125				
Iron	13.85	0.100	10.00	3.777	101	75	125				
Lead	1.035	0.0100	1.000	0.003910	103	75	125				
Magnesium	16.78	0.100	10.00	6.517	103	75	125				
Manganese	4.470	0.0150	1.000	3.546	92.4	75	125				
Nickel	1.029	0.0200	1.000	0.01424	101	75	125				
Potassium	11.54	0.500	10.00	1.434	101	75	125				
Selenium	1.065	0.0200	1.000		107	75	125				
Silver	0.1037	0.0100	0.1000		104	75	125				
Sodium	17.34	1.00	10.00	7.191	102	75	125				
Thallium	1.030	0.0200	1.000		103	75	125				
Vanadium	1.044	0.0100	1.000		104	75	125				
Zinc	1.028	0.0200	1.000		103	75	125				

Sample ID: 2104Q56-003CMSD	Client ID: OW-3				Units: mg/L	Prep Date: 04/26/2021	Run No: 452866				
SampleType: MSD	TestCode: METALS, TOTAL SW6010D				BatchID: 314227	Analysis Date: 04/27/2021	Seq No: 10350745				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Aluminum	10.65	0.200	10.00		106	75	125	10.56	0.816	20	
Antimony	1.068	0.0200	1.000		107	75	125	1.054	1.33	20	
Arsenic	1.065	0.0500	1.000		106	75	125	1.050	1.34	20	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Geo-Hydro Engineers, Inc.
Project Name: Cedartown Formal Municipal landfill Monitoring
Workorder: 2104Q56

ANALYTICAL QC SUMMARY REPORT**BatchID: 314227**

Sample ID: 2104Q56-003CMSD		Client ID: OW-3		Units: mg/L		Prep Date: 04/26/2021		Run No: 452866			
SampleType: MSD		TestCode: METALS, TOTAL SW6010D		BatchID: 314227		Analysis Date: 04/27/2021		Seq No: 10350745			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Barium	1.156	0.0200	1.000	0.1454	101	75	125	1.146	0.861	20	
Beryllium	1.042	0.0100	1.000		104	75	125	1.038	0.337	20	
Cadmium	1.050	0.0050	1.000		105	75	125	1.045	0.429	20	
Calcium	81.56	0.100	10.00	71.38	102	75	125	80.75	0.993	20	
Chromium	1.037	0.0100	1.000		104	75	125	1.029	0.805	20	
Cobalt	1.041	0.0200	1.000	0.01990	102	75	125	1.033	0.788	20	
Copper	1.061	0.0100	1.000		106	75	125	1.056	0.438	20	
Iron	13.97	0.100	10.00	3.777	102	75	125	13.85	0.857	20	
Lead	1.043	0.0100	1.000	0.003910	104	75	125	1.035	0.743	20	
Magnesium	16.93	0.100	10.00	6.517	104	75	125	16.78	0.878	20	
Manganese	4.515	0.0150	1.000	3.546	96.9	75	125	4.470	0.997	20	
Nickel	1.038	0.0200	1.000	0.01424	102	75	125	1.029	0.898	20	
Potassium	11.56	0.500	10.00	1.434	101	75	125	11.54	0.172	20	
Selenium	1.067	0.0200	1.000		107	75	125	1.065	0.203	20	
Silver	0.1042	0.0100	0.1000		104	75	125	0.1037	0.491	20	
Sodium	17.52	1.00	10.00	7.191	103	75	125	17.34	1.01	20	
Thallium	1.045	0.0200	1.000		104	75	125	1.030	1.40	20	
Vanadium	1.052	0.0100	1.000		105	75	125	1.044	0.782	20	
Zinc	1.038	0.0200	1.000		104	75	125	1.028	0.960	20	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Geo-Hydro Engineers, Inc.
Project Name: Cedartown Formal Municipal landfill Monitoring
Workorder: 2104Q56

ANALYTICAL QC SUMMARY REPORT**BatchID: 314284**

Sample ID: MB-314284	Client ID:				Units: ug/L	Prep Date: 04/26/2021	Run No: 452814				
SampleType: MBLK	TestCode: TCL VOLATILE ORGANICS SW8260D				BatchID: 314284	Analysis Date: 04/26/2021	Seq No: 10348727				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	BRL	5.0									
1,1,2,2-Tetrachloroethane	BRL	5.0									
1,1,2-Trichloroethane	BRL	5.0									
1,1-Dichloroethane	BRL	5.0									
1,1-Dichloroethene	BRL	5.0									
1,2,4-Trichlorobenzene	BRL	5.0									
1,2-Dibromo-3-chloropropane	BRL	5.0									
1,2-Dibromoethane	BRL	5.0									
1,2-Dichlorobenzene	BRL	5.0									
1,2-Dichloroethane	BRL	5.0									
1,2-Dichloropropane	BRL	5.0									
1,3-Dichlorobenzene	BRL	5.0									
1,4-Dichlorobenzene	BRL	5.0									
2-Butanone	BRL	50									
2-Hexanone	BRL	10									
4-Methyl-2-pentanone	BRL	10									
Acetone	BRL	50									
Benzene	BRL	5.0									
Bromodichloromethane	BRL	5.0									
Bromoform	BRL	5.0									
Bromomethane	BRL	5.0									
Carbon disulfide	BRL	5.0									
Carbon tetrachloride	BRL	5.0									
Chlorobenzene	BRL	5.0									
Chloroethane	BRL	10									
Chloroform	BRL	5.0									
Chloromethane	BRL	10									

Qualifiers: > Greater than Result value

< Less than Result value

B Analyte detected in the associated method blank

BRL Below reporting limit

E Estimated (value above quantitation range)

H Holding times for preparation or analysis exceeded

J Estimated value detected below Reporting Limit

N Analyte not NELAC certified

R RPD outside limits due to matrix

Rpt Lim Reporting Limit

S Spike Recovery outside limits due to matrix

Client: Geo-Hydro Engineers, Inc.
Project Name: Cedartown Formal Municipal landfill Monitoring
Workorder: 2104Q56

ANALYTICAL QC SUMMARY REPORT**BatchID: 314284**

Sample ID: MB-314284	Client ID:	Units: ug/L			Prep Date:	04/26/2021	Run No: 452814				
SampleType: MBLK	TestCode: TCL VOLATILE ORGANICS SW8260D	BatchID: 314284			Analysis Date:	04/26/2021	Seq No: 10348727				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
cis-1,2-Dichloroethene	BRL	5.0									
cis-1,3-Dichloropropene	BRL	5.0									
Cyclohexane	BRL	5.0									
Dibromochloromethane	BRL	5.0									
Dichlorodifluoromethane	BRL	10									
Ethylbenzene	BRL	5.0									
Freon-113	BRL	10									
Isopropylbenzene	BRL	5.0									
m,p-Xylene	BRL	5.0									
Methyl acetate	BRL	5.0									
Methyl tert-butyl ether	BRL	5.0									
Methylcyclohexane	BRL	5.0									
Methylene chloride	BRL	5.0									
o-Xylene	BRL	5.0									
Styrene	BRL	5.0									
Tetrachloroethene	BRL	5.0									
Toluene	BRL	5.0									
trans-1,2-Dichloroethene	BRL	5.0									
trans-1,3-Dichloropropene	BRL	5.0									
Trichloroethene	BRL	5.0									
Trichlorofluoromethane	BRL	5.0									
Vinyl chloride	BRL	2.0									
Surr: 4-Bromofluorobenzene	47.84	0	50.00		95.7	74.9	127				
Surr: Dibromofluoromethane	48.09	0	50.00		96.2	78.9	121				
Surr: Toluene-d8	48.39	0	50.00		96.8	81.5	120				

Qualifiers: > Greater than Result value
 BRL Below reporting limit
 J Estimated value detected below Reporting Limit
 Rpt Lim Reporting Limit

< Less than Result value
 E Estimated (value above quantitation range)
 N Analyte not NELAC certified
 S Spike Recovery outside limits due to matrix

B Analyte detected in the associated method blank
 H Holding times for preparation or analysis exceeded
 R RPD outside limits due to matrix

Client: Geo-Hydro Engineers, Inc.
Project Name: Cedartown Formal Municipal landfill Monitoring
Workorder: 2104Q56

ANALYTICAL QC SUMMARY REPORT**BatchID: 314284**

Sample ID: LCS-314284	Client ID:				Units: ug/L	Prep Date:	04/26/2021	Run No: 452814			
SampleType: LCS	TestCode: TCL VOLATILE ORGANICS SW8260D				BatchID: 314284	Analysis Date:	04/26/2021	Seq No: 10348773			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	17.23	5.0	20.00		86.2	67.3	134				
Benzene	18.08	5.0	20.00		90.4	78.6	124				
Chlorobenzene	19.78	5.0	20.00		98.9	78.9	127				
Toluene	18.11	5.0	20.00		90.6	77.7	125				
Trichloroethene	18.13	5.0	20.00		90.6	77	130				
Surr: 4-Bromofluorobenzene	48.63	0	50.00		97.3	74.9	127				
Surr: Dibromofluoromethane	47.45	0	50.00		94.9	78.9	121				
Surr: Toluene-d8	48.55	0	50.00		97.1	81.5	120				

Sample ID: 2104Q56-001AMS	Client ID: CL-08-WP				Units: ug/L	Prep Date:	04/26/2021	Run No: 452814			
SampleType: MS	TestCode: TCL VOLATILE ORGANICS SW8260D				BatchID: 314284	Analysis Date:	04/27/2021	Seq No: 10350013			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	21.84	5.0	20.00		109	67.6	143				
Benzene	24.08	5.0	20.00	2.500	108	70.5	136				
Chlorobenzene	27.73	5.0	20.00	5.250	112	77.1	133				
Toluene	21.73	5.0	20.00		109	66.4	140				
Trichloroethene	22.52	5.0	20.00		113	75.1	140				
Surr: 4-Bromofluorobenzene	49.10	0	50.00		98.2	74.9	127				
Surr: Dibromofluoromethane	47.43	0	50.00		94.9	78.9	121				
Surr: Toluene-d8	48.62	0	50.00		97.2	81.5	120				

Sample ID: 2104Q56-001AMSD	Client ID: CL-08-WP				Units: ug/L	Prep Date:	04/26/2021	Run No: 452814			
SampleType: MSD	TestCode: TCL VOLATILE ORGANICS SW8260D				BatchID: 314284	Analysis Date:	04/27/2021	Seq No: 10350022			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	21.64	5.0	20.00		108	67.6	143	21.84	0.920	19.6	
Benzene	24.11	5.0	20.00	2.500	108	70.5	136	24.08	0.125	20	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Geo-Hydro Engineers, Inc.
Project Name: Cedartown Formal Municipal landfill Monitoring
Workorder: 2104Q56

ANALYTICAL QC SUMMARY REPORT**BatchID: 314284**

Sample ID: 2104Q56-001AMSD	Client ID: CL-08-WP				Units: ug/L	Prep Date: 04/26/2021	Run No: 452814				
SampleType: MSD	TestCode: TCL VOLATILE ORGANICS SW8260D				BatchID: 314284	Analysis Date: 04/27/2021	Seq No: 10350022				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chlorobenzene	27.27	5.0	20.00	5.250	110	77.1	133	27.73	1.67	20	
Toluene	21.32	5.0	20.00		107	66.4	140	21.73	1.90	20	
Trichloroethene	21.91	5.0	20.00		110	75.1	140	22.52	2.75	20	
Surr: 4-Bromofluorobenzene	49.37	0	50.00		98.7	74.9	127	49.10	0	0	
Surr: Dibromofluoromethane	49.00	0	50.00		98.0	78.9	121	47.43	0	0	
Surr: Toluene-d8	48.32	0	50.00		96.6	81.5	120	48.62	0	0	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Geo-Hydro Engineers, Inc.
Project Name: Cedartown Formal Municipal landfill Monitoring
Workorder: 2104Q56

ANALYTICAL QC SUMMARY REPORT**BatchID: 314302**

Sample ID: MB-314302	Client ID:				Units: mg/L	Prep Date: 04/27/2021	Run No: 452947				
SampleType: MBLK	TestCode: Mercury, Total	SW7470A			BatchID: 314302	Analysis Date: 04/27/2021	Seq No: 10352590				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Mercury	BRL	0.00020									
Sample ID: LCS-314302	Client ID:				Units: mg/L	Prep Date: 04/27/2021	Run No: 452947				
SampleType: LCS	TestCode: Mercury, Total	SW7470A			BatchID: 314302	Analysis Date: 04/27/2021	Seq No: 10352592				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Mercury	0.003607	0.00020	0.0040		90.2	80	120				
Sample ID: 2104R53-001CMS	Client ID:				Units: mg/L	Prep Date: 04/27/2021	Run No: 452947				
SampleType: MS	TestCode: Mercury, Total	SW7470A			BatchID: 314302	Analysis Date: 04/27/2021	Seq No: 10352596				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Mercury	0.003869	0.00020	0.0040		96.7	75	125				
Sample ID: 2104R53-001CMSD	Client ID:				Units: mg/L	Prep Date: 04/27/2021	Run No: 452947				
SampleType: MSD	TestCode: Mercury, Total	SW7470A			BatchID: 314302	Analysis Date: 04/27/2021	Seq No: 10352600				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Mercury	0.003807	0.00020	0.0040		95.2	75	125	0.003869	1.62	20	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Geo-Hydro Engineers, Inc.
Project Name: Cedartown Formal Municipal landfill Monitoring
Workorder: 2104Q56

ANALYTICAL QC SUMMARY REPORT**BatchID: 314345**

Sample ID: MB-314345	Client ID:				Units: ug/L	Prep Date: 04/26/2021	Run No: 452906				
SampleType: MBLK	TestCode: TCL VOLATILE ORGANICS SW8260D				BatchID: 314345	Analysis Date: 04/26/2021	Seq No: 10351159				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	BRL	5.0									
1,1,2,2-Tetrachloroethane	BRL	5.0									
1,1,2-Trichloroethane	BRL	5.0									
1,1-Dichloroethane	BRL	5.0									
1,1-Dichloroethene	BRL	5.0									
1,2,4-Trichlorobenzene	BRL	5.0									
1,2-Dibromo-3-chloropropane	BRL	5.0									
1,2-Dibromoethane	BRL	5.0									
1,2-Dichlorobenzene	BRL	5.0									
1,2-Dichloroethane	BRL	5.0									
1,2-Dichloropropane	BRL	5.0									
1,3-Dichlorobenzene	BRL	5.0									
1,4-Dichlorobenzene	BRL	5.0									
2-Butanone	BRL	50									
2-Hexanone	BRL	10									
4-Methyl-2-pentanone	BRL	10									
Acetone	BRL	50									
Benzene	BRL	5.0									
Bromodichloromethane	BRL	5.0									
Bromoform	BRL	5.0									
Bromomethane	BRL	5.0									
Carbon disulfide	BRL	5.0									
Carbon tetrachloride	BRL	5.0									
Chlorobenzene	BRL	5.0									
Chloroethane	BRL	10									
Chloroform	BRL	5.0									
Chloromethane	BRL	10									

Qualifiers: > Greater than Result value

< Less than Result value

B Analyte detected in the associated method blank

BRL Below reporting limit

E Estimated (value above quantitation range)

H Holding times for preparation or analysis exceeded

J Estimated value detected below Reporting Limit

N Analyte not NELAC certified

R RPD outside limits due to matrix

Rpt Lim Reporting Limit

S Spike Recovery outside limits due to matrix

Client: Geo-Hydro Engineers, Inc.
Project Name: Cedartown Formal Municipal landfill Monitoring
Workorder: 2104Q56

ANALYTICAL QC SUMMARY REPORT**BatchID: 314345**

Sample ID: MB-314345	Client ID:	Units: ug/L			Prep Date:	04/26/2021	Run No:	452906			
SampleType: MBLK	TestCode: TCL VOLATILE ORGANICS SW8260D	BatchID: 314345			Analysis Date:	04/26/2021	Seq No:	10351159			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
cis-1,2-Dichloroethene	BRL	5.0									
cis-1,3-Dichloropropene	BRL	5.0									
Cyclohexane	BRL	5.0									
Dibromochloromethane	BRL	5.0									
Dichlorodifluoromethane	BRL	10									
Ethylbenzene	BRL	5.0									
Freon-113	BRL	10									
Isopropylbenzene	BRL	5.0									
m,p-Xylene	BRL	5.0									
Methyl acetate	BRL	5.0									
Methyl tert-butyl ether	BRL	5.0									
Methylcyclohexane	BRL	5.0									
Methylene chloride	BRL	5.0									
o-Xylene	BRL	5.0									
Styrene	BRL	5.0									
Tetrachloroethene	BRL	5.0									
Toluene	BRL	5.0									
trans-1,2-Dichloroethene	BRL	5.0									
trans-1,3-Dichloropropene	BRL	5.0									
Trichloroethene	BRL	5.0									
Trichlorofluoromethane	BRL	5.0									
Vinyl chloride	BRL	2.0									
Surr: 4-Bromofluorobenzene	47.23	0	50.00		94.5	74.9	127				
Surr: Dibromofluoromethane	44.92	0	50.00		89.8	78.9	121				
Surr: Toluene-d8	49.78	0	50.00		99.6	81.5	120				

Qualifiers: > Greater than Result value
 BRL Below reporting limit
 J Estimated value detected below Reporting Limit
 Rpt Lim Reporting Limit

< Less than Result value
 E Estimated (value above quantitation range)
 N Analyte not NELAC certified
 S Spike Recovery outside limits due to matrix

B Analyte detected in the associated method blank
 H Holding times for preparation or analysis exceeded
 R RPD outside limits due to matrix

Client: Geo-Hydro Engineers, Inc.
Project Name: Cedartown Formal Municipal landfill Monitoring
Workorder: 2104Q56

ANALYTICAL QC SUMMARY REPORT**BatchID: 314345**

Sample ID: LCS-314345	Client ID:				Units: ug/L	Prep Date: 04/26/2021	Run No: 452906				
SampleType: LCS	TestCode: TCL VOLATILE ORGANICS SW8260D				BatchID: 314345	Analysis Date: 04/26/2021	Seq No: 10354724				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	17.69	5.0	20.00		88.4	67.3	134				
Benzene	20.01	5.0	20.00		100	78.6	124				
Chlorobenzene	20.19	5.0	20.00		101	78.9	127				
Toluene	21.50	5.0	20.00		108	77.7	125				
Trichloroethene	19.78	5.0	20.00		98.9	77	130				
Surr: 4-Bromofluorobenzene	49.30	0	50.00		98.6	74.9	127				
Surr: Dibromofluoromethane	44.26	0	50.00		88.5	78.9	121				
Surr: Toluene-d8	50.81	0	50.00		102	81.5	120				

Sample ID: 2104R98-002AMS	Client ID:				Units: ug/L	Prep Date: 04/26/2021	Run No: 452906				
SampleType: MS	TestCode: TCL VOLATILE ORGANICS SW8260D				BatchID: 314345	Analysis Date: 04/28/2021	Seq No: 10354727				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	16.56	5.0	20.00		82.8	67.6	143				
Benzene	17.90	5.0	20.00		89.5	70.5	136				
Chlorobenzene	18.27	5.0	20.00		91.4	77.1	133				
Toluene	19.30	5.0	20.00		96.5	66.4	140				
Trichloroethene	18.11	5.0	20.00		90.6	75.1	140				
Surr: 4-Bromofluorobenzene	46.33	0	50.00		92.7	74.9	127				
Surr: Dibromofluoromethane	44.28	0	50.00		88.6	78.9	121				
Surr: Toluene-d8	48.40	0	50.00		96.8	81.5	120				

Sample ID: 2104R98-002AMSD	Client ID:				Units: ug/L	Prep Date: 04/26/2021	Run No: 452906				
SampleType: MSD	TestCode: TCL VOLATILE ORGANICS SW8260D				BatchID: 314345	Analysis Date: 04/28/2021	Seq No: 10354728				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	14.53	5.0	20.00		72.6	67.6	143	16.56	13.1	19.6	
Benzene	16.41	5.0	20.00		82.0	70.5	136	17.90	8.69	20	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Geo-Hydro Engineers, Inc.
Project Name: Cedartown Formal Municipal landfill Monitoring
Workorder: 2104Q56

ANALYTICAL QC SUMMARY REPORT**BatchID: 314345**

Sample ID: 2104R98-002AMSD	Client ID:				Units: ug/L	Prep Date: 04/26/2021	Run No: 452906				
SampleType: MSD	TestCode: TCL VOLATILE ORGANICS SW8260D				BatchID: 314345	Analysis Date: 04/28/2021	Seq No: 10354728				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chlorobenzene	17.14	5.0	20.00		85.7	77.1	133	18.27	6.38	20	
Toluene	17.90	5.0	20.00		89.5	66.4	140	19.30	7.53	20	
Trichloroethene	16.71	5.0	20.00		83.6	75.1	140	18.11	8.04	20	
Surr: 4-Bromofluorobenzene	46.26	0	50.00		92.5	74.9	127	46.33	0	0	
Surr: Dibromofluoromethane	43.85	0	50.00		87.7	78.9	121	44.28	0	0	
Surr: Toluene-d8	48.92	0	50.00		97.8	81.5	120	48.40	0	0	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Geo-Hydro Engineers, Inc.
Project Name: Cedartown Formal Municipal landfill Monitoring
Workorder: 2104Q56

ANALYTICAL QC SUMMARY REPORT**BatchID: 314368**

Sample ID: MB-314368	Client ID:				Units: ug/L	Prep Date: 04/28/2021	Run No: 453138				
SampleType: MBLK	TestCode: POLYCHLORINATED BIPHENYLS SW8082A				BatchID: 314368	Analysis Date: 04/28/2021	Seq No: 10357887				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Aroclor 1016	BRL	0.50									
Aroclor 1221	BRL	0.50									
Aroclor 1232	BRL	0.50									
Aroclor 1242	BRL	0.50									
Aroclor 1248	BRL	0.50									
Aroclor 1254	BRL	0.50									
Aroclor 1260	BRL	0.50									
Surr: Decachlorobiphenyl	0.3231	0	0.5000		64.6	30	120				
Surr: Tetrachloro-m-xylene	0.4266	0	0.5000		85.3	46.5	120				

Sample ID: LCS-314368	Client ID:				Units: ug/L	Prep Date: 04/28/2021	Run No: 453138				
SampleType: LCS	TestCode: POLYCHLORINATED BIPHENYLS SW8082A				BatchID: 314368	Analysis Date: 04/28/2021	Seq No: 10357893				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Aroclor 1016	4.605	0.50	5.000		92.1	73.2	118				
Aroclor 1260	4.113	0.50	5.000		82.3	60	120				
Surr: Decachlorobiphenyl	0.2885	0	0.5000		57.7	30	120				
Surr: Tetrachloro-m-xylene	0.4377	0	0.5000		87.5	46.5	120				

Sample ID: 2104Q56-006BMS	Client ID: SW-2				Units: ug/L	Prep Date: 04/28/2021	Run No: 453138				
SampleType: MS	TestCode: POLYCHLORINATED BIPHENYLS SW8082A				BatchID: 314368	Analysis Date: 04/28/2021	Seq No: 10357894				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Aroclor 1016	4.205	0.50	5.000		84.1	60.4	127				
Aroclor 1260	3.798	0.50	5.000		76.0	51	121				
Surr: Decachlorobiphenyl	0.3482	0	0.5000		69.6	30	120				
Surr: Tetrachloro-m-xylene	0.4209	0	0.5000		84.2	46.5	120				

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Geo-Hydro Engineers, Inc.
Project Name: Cedartown Formal Municipal landfill Monitoring
Workorder: 2104Q56

ANALYTICAL QC SUMMARY REPORT**BatchID: 314368**

Sample ID: 2104Q56-006BMSD	Client ID: SW-2	Units: ug/L			Prep Date: 04/28/2021	Run No: 453138					
SampleType: MSD	TestCode: POLYCHLORINATED BIPHENYLS SW8082A	BatchID: 314368			Analysis Date: 04/28/2021	Seq No: 10357895					
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Aroclor 1016	4.130	0.50	5.000		82.6	60.4	127	4.205	1.80	19	
Aroclor 1260	3.739	0.50	5.000		74.8	51	121	3.798	1.57	20.1	
Surr: Decachlorobiphenyl	0.3476	0	0.5000		69.5	30	120	0.3482	0	0	
Surr: Tetrachloro-m-xylene	0.4030	0	0.5000		80.6	46.5	120	0.4209	0	0	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Geo-Hydro Engineers, Inc.
Project Name: Cedartown Formal Municipal landfill Monitoring
Workorder: 2104Q56

ANALYTICAL QC SUMMARY REPORT**BatchID: 314408**

Sample ID: MB-314408	Client ID:				Units: mg/L	Prep Date: 04/28/2021	Run No: 453117				
SampleType: MBLK	TestCode: Cyanide SW9014				BatchID: 314408	Analysis Date: 04/29/2021	Seq No: 10357286				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Cyanide, Total	BRL	0.010									
Sample ID: LCS-314408	Client ID:				Units: mg/L	Prep Date: 04/28/2021	Run No: 453117				
SampleType: LCS	TestCode: Cyanide SW9014				BatchID: 314408	Analysis Date: 04/29/2021	Seq No: 10357287				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Cyanide, Total	0.2630	0.010	0.2500		105	85	115				
Sample ID: 2104O88-002EMS	Client ID:				Units: mg/L	Prep Date: 04/28/2021	Run No: 453117				
SampleType: MS	TestCode: Cyanide SW9014				BatchID: 314408	Analysis Date: 04/29/2021	Seq No: 10357302				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Cyanide, Total	0.2510	0.010	0.2500		100	70	130				
Sample ID: 2104O88-005EMS	Client ID:				Units: mg/L	Prep Date: 04/28/2021	Run No: 453117				
SampleType: MS	TestCode: Cyanide SW9014				BatchID: 314408	Analysis Date: 04/29/2021	Seq No: 10357289				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Cyanide, Total	0.2370	0.010	0.2500	0.006000	92.4	70	130				
Sample ID: 2104O88-005EMSD	Client ID:				Units: mg/L	Prep Date: 04/28/2021	Run No: 453117				
SampleType: MSD	TestCode: Cyanide SW9014				BatchID: 314408	Analysis Date: 04/29/2021	Seq No: 10357290				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Cyanide, Total	0.2350	0.010	0.2500	0.006000	91.6	70	130	0.2370	0.847	20	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Geo-Hydro Engineers, Inc.
Project Name: Cedartown Formal Municipal landfill Monitoring
Workorder: 2104Q56

ANALYTICAL QC SUMMARY REPORT**BatchID: 314518**

Sample ID: MB-314518	Client ID:				Units: mg/L	Prep Date: 04/29/2021	Run No: 453245				
SampleType: MBLK	TestCode: Cyanide SW9014				BatchID: 314518	Analysis Date: 04/29/2021	Seq No: 10360121				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Cyanide, Total	BRL	0.010									
Sample ID: LCS-314518	Client ID:				Units: mg/L	Prep Date: 04/29/2021	Run No: 453245				
SampleType: LCS	TestCode: Cyanide SW9014				BatchID: 314518	Analysis Date: 04/29/2021	Seq No: 10360122				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Cyanide, Total	0.2480	0.010	0.2500		99.2	85	115				
Sample ID: 2104R10-006DMS	Client ID:				Units: mg/L	Prep Date: 04/29/2021	Run No: 453245				
SampleType: MS	TestCode: Cyanide SW9014				BatchID: 314518	Analysis Date: 04/29/2021	Seq No: 10360124				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Cyanide, Total	0.2470	0.010	0.2500		98.8	70	130				
Sample ID: 2104R10-006DMSD	Client ID:				Units: mg/L	Prep Date: 04/29/2021	Run No: 453245				
SampleType: MSD	TestCode: Cyanide SW9014				BatchID: 314518	Analysis Date: 04/29/2021	Seq No: 10360125				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Cyanide, Total	0.2520	0.010	0.2500		101	70	130	0.2470	2.00	20	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Geo-Hydro Engineers, Inc.
Project Name: Cedartown Formal Municipal landfill Monitoring
Workorder: 2104Q56

ANALYTICAL QC SUMMARY REPORT**BatchID: R452903**

Sample ID: LCS-R452903	Client ID:				Units: mg/L	Prep Date:	Run No: 452903				
SampleType: LCS	TestCode: Alkalinity by SM2320B				BatchID: R452903	Analysis Date: 04/27/2021	Seq No: 10351076				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	127.0	3.00	125.0		102	90	110				
Sample ID: 2104Q56-006EDUP	Client ID: SW-2				Units: mg/L	Prep Date:	Run No: 452903				
SampleType: DUP	TestCode: Alkalinity by SM2320B				BatchID: R452903	Analysis Date: 04/27/2021	Seq No: 10351078				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	28.52	3.00						28.48	0.140	30	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Geo-Hydro Engineers, Inc.
Project Name: Cedartown Formal Municipal landfill Monitoring
Workorder: 2104Q56

ANALYTICAL QC SUMMARY REPORT**BatchID: R453035**

Sample ID: LCS-R453035	Client ID:				Units: mg/L	Prep Date:	Run No: 453035				
SampleType: LCS	TestCode: Alkalinity by SM2320B				BatchID: R453035	Analysis Date: 04/28/2021	Seq No: 10355098				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	1080	3.00	1000		108	90	110				
Sample ID: 2104O57-006BDUP	Client ID:				Units: mg/L	Prep Date:	Run No: 453035				
SampleType: DUP	TestCode: Alkalinity by SM2320B				BatchID: R453035	Analysis Date: 04/28/2021	Seq No: 10355100				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	557.5	3.00				625.0		11.4		30	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Geo-Hydro Engineers, Inc.
Project Name: Cedartown Formal Municipal landfill Monitoring
Workorder: 2104Q56

ANALYTICAL QC SUMMARY REPORT**BatchID: R453243**

Sample ID: MB-R453243	Client ID: ION SCAN SW9056A	Units: mg/L	Prep Date:	Run No: 453243							
SampleType: MBLK	TestCode: ION SCAN SW9056A	BatchID: R453243	Analysis Date: 04/28/2021	Seq No: 10360150							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloride	BRL	1.0									
Sulfate	BRL	1.0									
Sample ID: LCS-R453243	Client ID: ION SCAN SW9056A	Units: mg/L	Prep Date:	Run No: 453243							
SampleType: LCS	TestCode: ION SCAN SW9056A	BatchID: R453243	Analysis Date: 04/28/2021	Seq No: 10360149							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloride	10.35	1.0	10.00		103	90	110				
Sulfate	26.89	1.0	25.00		108	90	110				
Sample ID: 2104R37-001CMS	Client ID: ION SCAN SW9056A	Units: mg/L	Prep Date:	Run No: 453243							
SampleType: MS	TestCode: ION SCAN SW9056A	BatchID: R453243	Analysis Date: 04/28/2021	Seq No: 10360167							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloride	22.52	1.0	10.00	20.84	16.8	90	110				S
Sulfate	58.90	1.0	25.00	46.86	48.1	90	110				S
Sample ID: 2104R37-002CMS	Client ID: ION SCAN SW9056A	Units: mg/L	Prep Date:	Run No: 453243							
SampleType: MS	TestCode: ION SCAN SW9056A	BatchID: R453243	Analysis Date: 04/28/2021	Seq No: 10360169							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloride	15.44	1.0	10.00	5.541	99.0	90	110				
Sulfate	30.86	1.0	25.00	5.457	102	90	110				
Sample ID: 2104R37-001CMSD	Client ID: ION SCAN SW9056A	Units: mg/L	Prep Date:	Run No: 453243							
SampleType: MSD	TestCode: ION SCAN SW9056A	BatchID: R453243	Analysis Date: 04/28/2021	Seq No: 10360168							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloride	22.80	1.0	10.00	20.84	19.5	90	110	22.52	1.22	20	S

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Geo-Hydro Engineers, Inc.
Project Name: Cedartown Formal Municipal landfill Monitoring
Workorder: 2104Q56

ANALYTICAL QC SUMMARY REPORT**BatchID: R453243**

Sample ID: 2104R37-001CMSD	Client ID:				Units: mg/L	Prep Date:	Run No: 453243				
SampleType: MSD	TestCode: ION SCAN SW9056A				BatchID: R453243	Analysis Date: 04/28/2021	Seq No: 10360168				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Sulfate	59.71	1.0	25.00	46.86	51.4	90	110	58.90	1.36	20	S

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

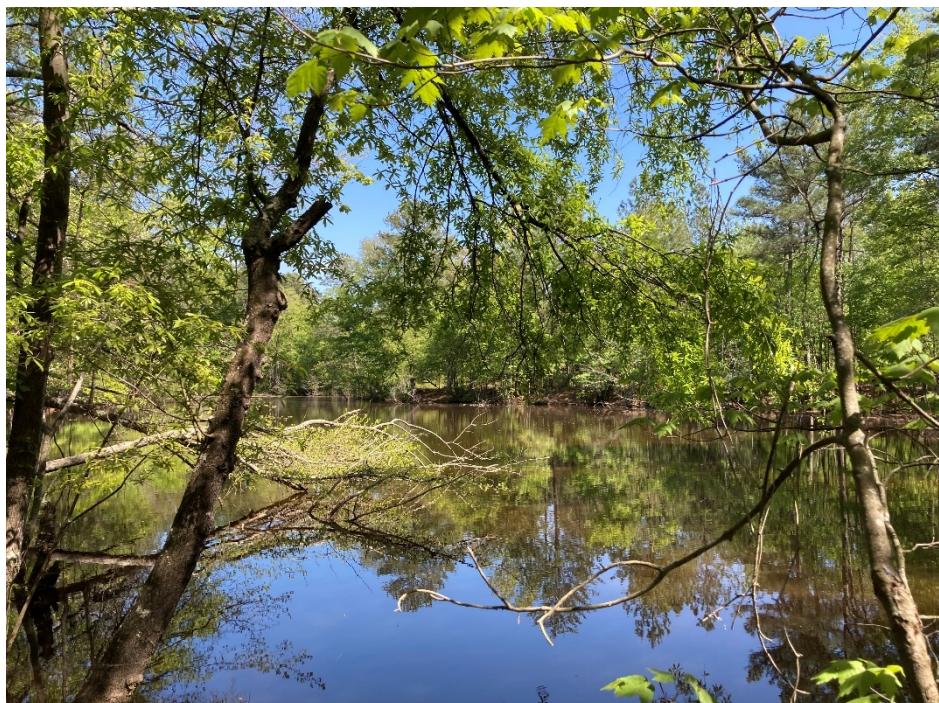
End of Report

APPENDIX I – SITE PHOTOGRAPHS

April 2021 Sampling Event Photographs (provided by Geo-Hydro Engineers)



Beaver activity near surface water sampling locations



Beaver activity near surface water sampling locations



Damaged well LW-2

APPENDIX J – ARARS REVIEW

CERCLA Section 121(d)(1) requires that Superfund remedial actions attain “a degree of cleanup of hazardous substance, pollutants, and contaminants released into the environment and of control of further release at a minimum which assures protection of human health and the environment.” The remedial action must achieve a level of cleanup that at least attains those requirements that are legally applicable or relevant and appropriate. In performing the FYR for compliance with applicable or relevant and appropriate requirements (ARARs), only those ARARs that address the protectiveness of the remedy are reviewed.

Groundwater ARARs

The 1993 ROD selected the Safe Drinking Water Act MCLs and maximum contaminant level goals (MCLGs) and Georgia state MCLs as chemical-specific ARARs for the Site. Except for manganese, the federal MCLs were the basis for the groundwater performance standards for site COCs.

Table J-1 compares groundwater ARARs in the 1993 ROD against the current values of these ARARs. No changes have occurred. The groundwater protection standards for beryllium, cadmium, chromium, and lead remain valid.

Table J-1: Groundwater ARAR Review

COC	1993 ROD ARAR ($\mu\text{g/L}$) ^a	2021 ARARs ($\mu\text{g/L}$)		ARAR Change
		Federal ^b	State ^c	
Beryllium	4	4	4	No change
Cadmium	5	5	5	No change
Chromium	100	100	100	No change
Lead	15	15 (action level)	15 (action level)	No change

Notes:

a) Source: Table 6-4, 1993 Record of Decision and 1996 ESD

b) National primary drinking water standards available at <https://www.epa.gov/ground-water-and-drinking-water/national-primary-drinking-water-regulations> (accessed February 26, 2021). Listed values are MCLs unless otherwise noted.

c) Georgia drinking water standards from Georgia Administrative Code, Rule 391-3-5-.18, available at <http://rules.sos.ga.gov/GAC/391-3-5-.18?urlRedirected=yes&data=admin&lookingfor=391-3-5-.18> (accessed February 26, 2021). Listed values are MCLs unless otherwise noted.

$\mu\text{g/L}$ = micrograms per liter

APPENDIX K – SCREENING-LEVEL RISK REVIEW

Evaluation of Manganese Groundwater Performance Standard

To evaluate if the manganese groundwater performance standard remains valid, this FYR conducted a screening-level risk evaluation. The screening-level risk evaluation compared the 1996 ESD's groundwater performance standard to EPA's 2020 tapwater regional screening level (RSL), which is based on established and provisional toxicity values and conservative default exposure assumptions. Table K-1 shows that the manganese performance standard results in a noncancer HQ above the EPA's threshold of 1. However, the EPA previously demonstrated that manganese in groundwater is not site-related. Groundwater is not used for drinking water at the Site and institutional controls are in place to restrict future use of groundwater. Therefore, the change in toxicity data for manganese does not affect protectiveness of the remedy.

Table K-1: Groundwater Performance Standard Risk Screening

COC	1996 ESD Groundwater Performance Standard ($\mu\text{g/L}$)	Tapwater RSLs ^a ($\mu\text{g/L}$)		Risk	HQ ^b
		Carcinogenic (10^{-6} target risk)	Noncancer (target HQ=1)		
Manganese	840	--	430	--	2

Notes:

a) Current EPA RSLs, dated November 2020, are available at <http://www2.epa.gov/risk/risk-based-screening-table-generic-tables> (accessed February 26, 2021).

b) Noncancer HQ calculated using the following equation: HQ = (performance standard ÷ noncancer RSL).
-- = not applicable; carcinogenic toxicity data unavailable

HQ = hazard quotient
 $\mu\text{g/L}$ = micrograms per liter
Bold result indicates HQ exceeds 1.